ORDER NO. VRD9102M106

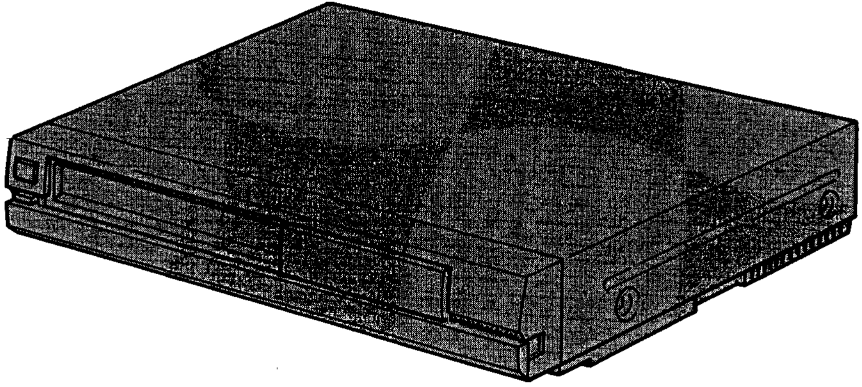
Service Manual

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

V10818

Video Cassette Recorder
Panasonic VHS HQ
PAL SECAM NTSC

NV-J700PX



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 110~240V 50/60Hz
	CONSUMPTION: 32 watts
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL, SECAM, NTSC
TV TUNER SYSTEM	VHF I: NTSC; CH2~CHA-3 75Ω unbalanced PAL/SECAM B.G.H.D.K.I; CHE2~CHS3 (CHE2~CHE4, CHS1~CHS3) 75Ω unbalanced VHF III: NTSC; CHA-2~CHW 75Ω unbalanced PAL/SECAM B.G.H.D.K.I; CHM1~CHU10 (CHM1~CHM10, CHE5~CHE12, CHU1~CHU10) 75Ω unbalanced UHF: NTSC; CH14~CH69 75Ω unbalanced PAL/SECAM B.G.H.D.K.I; CH21~CH69 75Ω unbalanced
RF OUT SYSTEM	UHF: CHC25$^{+2}_{-1}$ (PAL I/SECAM D.K) CHE38$^{+2}_{-6}$ (PAL/SECAM B.G) 73±3dBμ 75Ω terminated
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playback (L-R heads) 1 pair for trick (L′-R′ heads)
	INPUT: VIDEO IN Connector (PHONO type) 1.0Vp-p, 75Ω terminated
	OUTPUT: VIDEO OUT Connector (PHONO type) 1.0Vp-p, 75Ω terminated

ITEM	SPECIFICATION
AUDIO	HEAD: 1 Stationary head (Normal Audio)
	INPUT: AUDIO IN Connector (PHONO type), more than −10dBV (316mV), more than 50kΩ
	OUTPUT: AUDIO OUT Connector (PHONO type), −6dBV (500mV), less than 1kΩ
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	PAL/SECAM; SP: 23.39mm/s PAL/SECAM; LP: 11.695mm/s NTSC; SP: 33.3mm/s NTSC; SLP: 11.1mm/s Record/Playback Time: SP; 4 hours with 240min. type tape (PAL/SECAM) 2 hours with 120min. type tape (NTSC) LP; 8 hours with 240min. type tape (PAL/SECAM) SLP; 6 hours with 120min. type tape (NTSC) FF/REW Time: less than 5.5min. with 180min. type tape (PAL/SECAM) less than 5.5min. with 120min. type tape (NTSC)
DIMENSIONS	430 (W) × 82 (H) × 353 (D) mm
WEIGHT	5.5kg
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red remote controller 1 pc. AC Mains Lead 1 pc. Separational Adaptor 1 pc. AC Plug Adaptor 1 pc. Matching Adaptor 1 pc. A/V CORD 1 pc. DIN-F RF Cable

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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SERVICE INFORMATION

1-1. HOW TO CHECK THE CRACKED CHIP PART

(1) Apply heat to the soldered portions of chip part using a soldering iron for about 2–3 seconds.
(2) If the chip part is faulty,it will be broken or cracked.

Caution: Do not leave soldering iron on the PCB too long as damage may occur to the PCB or the chip parts.

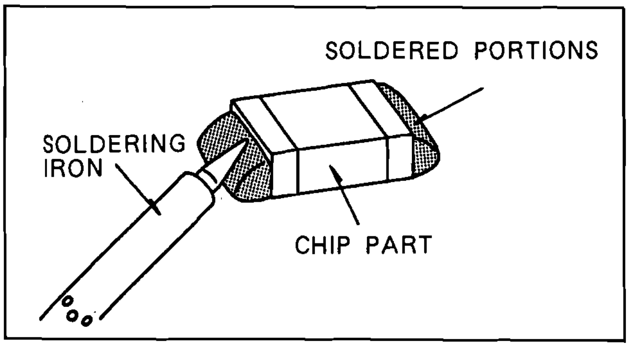

SOLDERED PORTIONS
SOLDERING IRON
CHIP PART

FIG. G1

Note: Regarding intermittent faults
The main causes of these faults are poor soldering and cracked chip parts.

1-2. HOW TO REPLACE THE CHIP PART

1) REMOVAL (RESISTOR, CAPACITOR, etc...)

(1) Presolder the one side of soldering portion for chip part and grasp the chip part by tweezers.

(2) Melt the presoldered portion. And then remove the chip part with a twisting motion while melting the soldering portion of another side quickly.

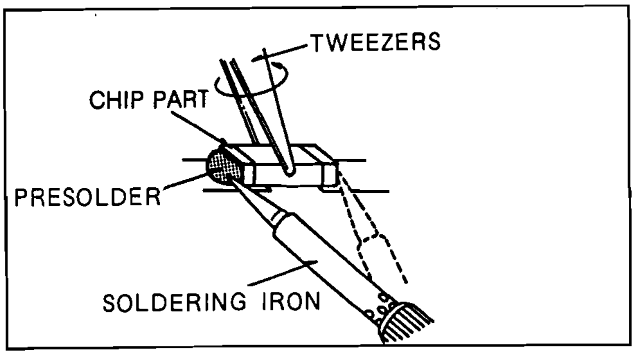

TWEEZERS
CHIP PART
PRESOLDER
SOLDERING IRON

FIG. G2

2) REMOVAL (transistor, diode, etc...)

(1) Grasp the chip part with tweezers and melt the solder of one lead.

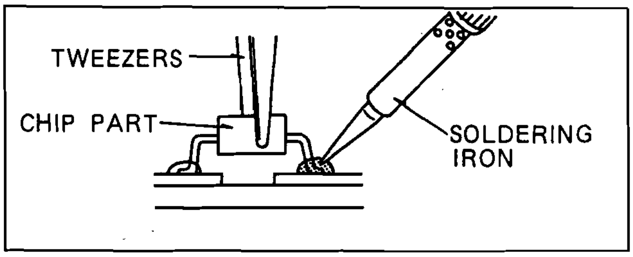

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G3

(2) Lift the side of that lead upward.

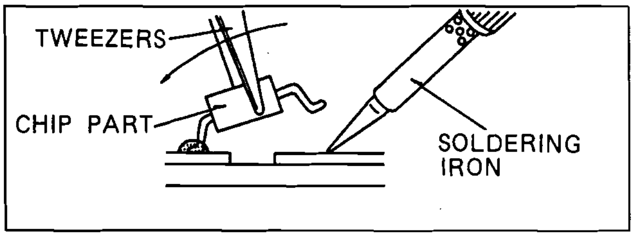

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G4

Caution: Do not lift the chip part too high as damage may occur to the PCB or the leads that are still soldered on the PCB.

(3) Simultaneously heat the solder of the two remaining leads and lift part to remove.

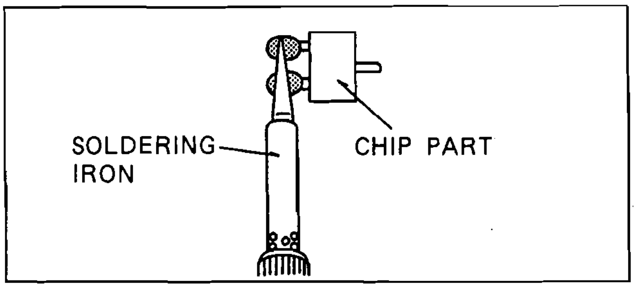

SOLDERING IRON
CHIP PART

FIG. G5

3) INSTALLATION

(1) Presolder the one side of contact point on the circuit board.

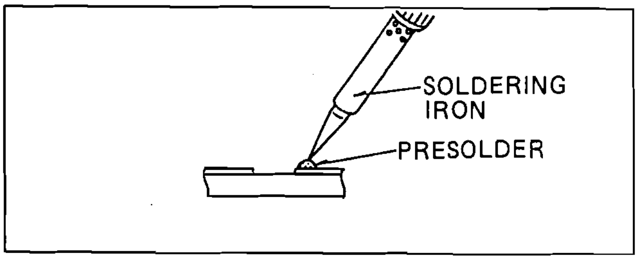

SOLDERING IRON
PRESOLDER

FIG. G6

(2) To install the chip part,hold in position using tweezers, apply heat to the pre-soldered portions using a fine tip soldering iron.
(3) Solder the other side of the chip part.
(4) Check your soldering.

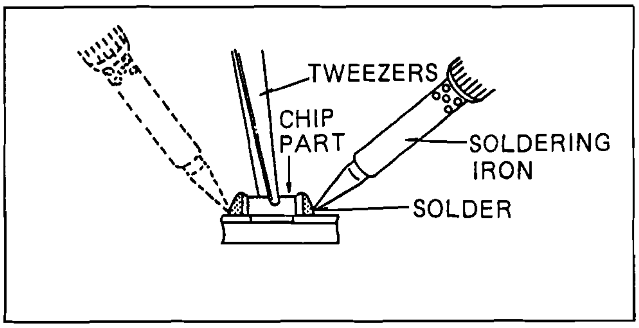

TWEEZERS
CHIP PART
SOLDERING IRON
SOLDER

FIG. G7

1-3. HOW TO REMOVE THE FLAT-IC

(WITH HOT-AIR FLAT-IC DESOLDERING MACHINE)

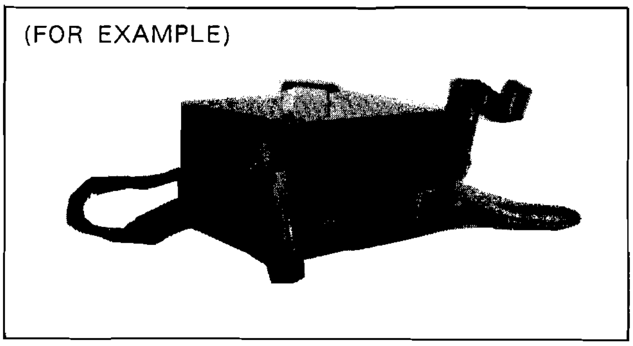

(FOR EXAMPLE)

FIG. G8

(1) Prepare the HOT-AIR FLAT-IC DESOLDERING MACHINE. And then apply hot air to FLAT-IC about 5 ~ 8 seconds.

(2) Remove the FLAT-IC with tweezers while applying the hot air.

Caution: Do not supply the hot air to the chip parts around the Flat-IC for long time as as damage may occur to the chip parts around the Flat -IC.

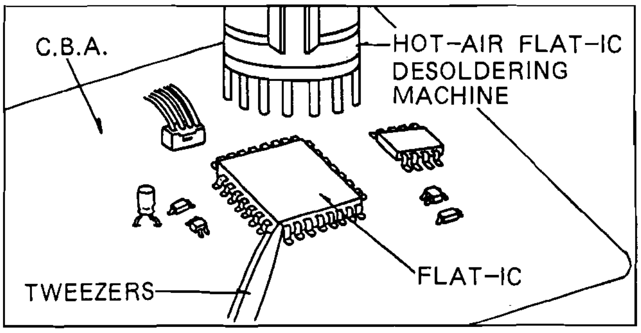

C.B.A.
HOT-AIR FLAT-IC DESOLDERING MACHINE
FLAT-IC
TWEEZERS

FIG. G9

(WITH SOLDERING IRON)

(1) Using solder braid remove the solder from all pins of the Flat-IC.
When you use the solder flux which is applied to all pins of the Flat-IC,you can remove it easily.

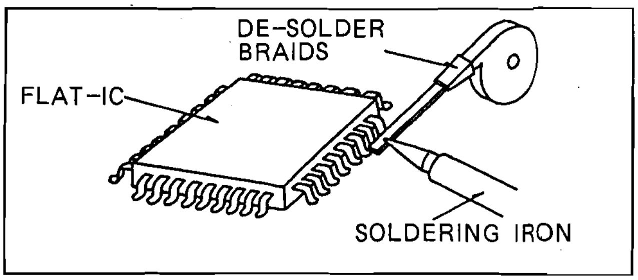

DE-SOLDER BRAIDS
FLAT-IC
SOLDERING IRON

FIG. G10

(2) Lift each lead of the Flat-IC upward one by one using a sharp pin or non solder wire(iron wire),while heating the pins using a fine tip soldering iron or a hot air blower.

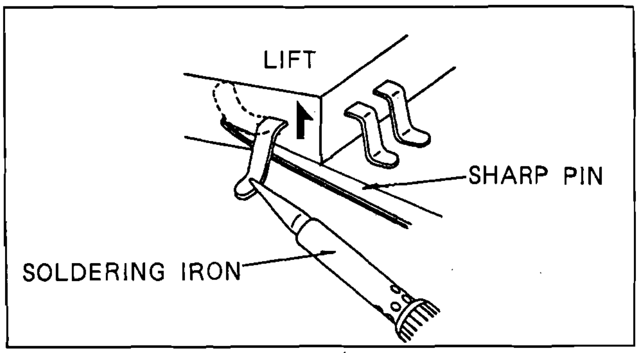

LIFT
SHARP PIN
SOLDERING IRON

FIG. G11

(WITH IRON WIRE)

(1) Affix the wire to workbench or solid mounting point as shown in FIG.G12.
(2) Pull up wire as the solder melts so as to lift the IC lead from the PCB contact pad,while heating the pins using a fine tip soldering iron or hot air blower.

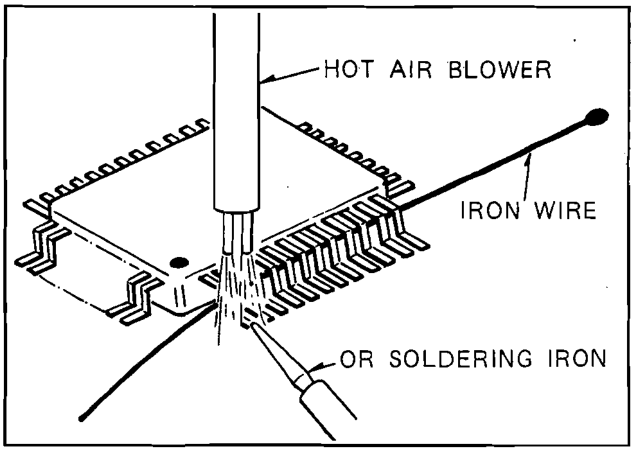

HOT AIR BLOWER
IRON WIRE
OR SOLDERING IRON

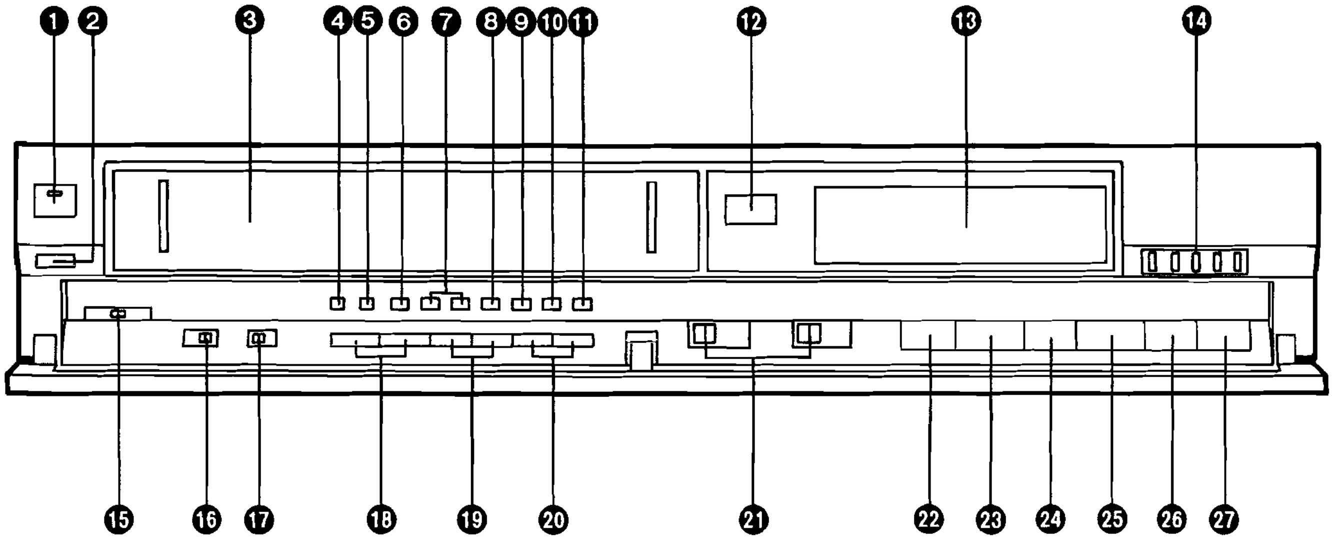
FIG.G12

Note: When using a soldering iron care must be taken to ensure that the Flat IC is not being held by glue before it is the PCB may be damaged if force is used.

GENERAL DESCRIPTIONS

CONTROLS AND COMPONENTS

FRONT



❶ Power On/Off Switch with Indicator

❷ Eject Button (▲)

❸ Cassette Compartment

❹ Clock Button

❺ Preset/Fine/Normal Button

❻ Program/Check Button

	VHF		UHF
	I	III	U
NTSC	2-A-3	A-2-W	14–69
PAL/SECAM B•G•H D•K I	E2–S3 (E2–E4 S1–S3)	M1–U10 (M1–M10 E5–E12 U1–U10)	21–69

❼ Tracking Buttons

❽ Next Button

❾ Ant Select Button

❿ Add/Delete Button

⓫ Timer Record Button

⓬ Remote Control Receiver

⓭ Multi-Function Display

⓮ System Indicators

⓯ Picture Sharpness Control

⓰ Noise Filter/Edit Selector

⓱ Tape Speed Selector

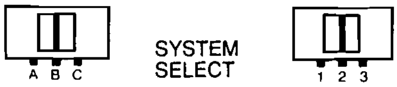
⓲ Channel Selection Up and Down Buttons

⓳ OTR On Buttons

⓴ OTR Off Buttons

㉑ System Selectors

	1	2	3
A	AUTO	AUTO	AUTO
B	NTSC3.58	PAL	MESECAM
C	NTSC4.43	SECAM	PB NTSC/PAL



When the System Selectors are set to "AUTO", the color system (PAL, NTSC 3.58 MHz or MESECAM) that corresponds to the program to be recorded or played back will be selected automatically. SECAM system signals will be recorded in the MESECAM system.
If the picture is not stable, set the System Selectors to the system in which the recording or playback is to be made.

When recording and playing back in another system (NTSC 4.43 MHz, or SECAM), set the System Selectors to the system in which the recording or playback is to be made.

Set the System Selectors according to the chart below. (For example, in order to select SECAM, set the System Selectors to "C" and "2".)

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	AUTO	AUTO	AUTO
[illegible]	NTSC3.58	PAL	MESECAM
[illegible]	NTSC4.43	SECAM	PB NTSC/PAL

Note:
It is not possible to monitor the picture if the color systems of the playback picture and the TV set are different (Except for PB NTSC/PAL).

A-1 AUTO
When the System Selectors are set to this position, PAL, NTSC 3.58 or MESECAM will be selected automatically according to the system of the program to be recorded or played back. SECAM system signals will be recorded in the MESECAM system.

A-2 AUTO
This position is the same as **A-1 AUTO**.

A-3 AUTO
This position is the same as **A-1 AUTO**.

B-1 NTSC 3.58
When recording or playing back a tape recorded in the NTSC 3.58 system, set the System Selectors to this position.

B-2 PAL
When recording or playing back a tape recorded in the PAL system, set the System Selectors to this position.

B-3 MESECAM
When recording or playing back a tape recorded in the MESECAM system, set the System Selectors to this position.

C-1 NTSC 4.43
When recording or playing back a tape recorded in the NTSC 4.43 system, set the System Selectors to this position.

C-2 SECAM
When recording or playing back a tape recorded in the SECAM system, set the System Selectors to this position.

C-3 PB NTSC/PAL
When playing back a tape recorded in the NTSC system on a PAL system TV set, set the System Selectors to this position.

■ **System Indicators**
The lamp corresponding to the mode selected with the System Selectors will be lit.
- When the System Selectors are set to "C-3", the System Indicators will not light up.

When the System Selectors are set to "AUTO":
- The System Indicator (PAL, NTSC 3.58 or MESECAM) for the system in which the recording or playback is being made will light up.

Note:
When the System Selectors are set to "AUTO", it is not possible to record or play back in a system other than PAL, NTSC 3.58 or MESECAM. However, one of the System Indicators (PAL, NTSC 3.58 or MESECAM) will light up. In that case, set the System Selectors to the system in which the recording or playback is to be made.

㉒ Rewind ◀◀/Review ⊟ Button

㉓ Play Button (▶)

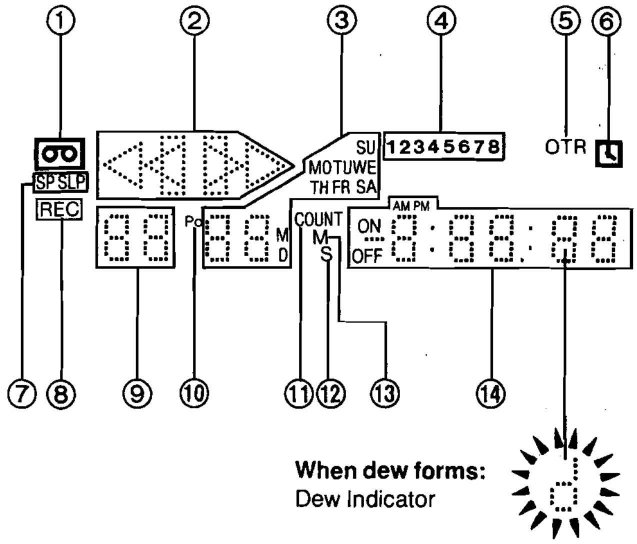
㉔ Fast Forward ▶▶/Cue ⊟ Button

㉕ Stop Button (■)

㉖ Pause/Still Button (❚❚)

㉗ Record Button (●)

Multi-Function Display



When dew forms:
Dew Indicator

① Cassette-in Indicator

② Tape Running Display

③ Date Display

④ Timer Programme Number

⑤ OTR Indicator

⑥ Timer Recording Indicator

⑦ Tape Speed Indicator

⑧ Recording Indicator

⑨ Channel Display

⑩ Position Indicator

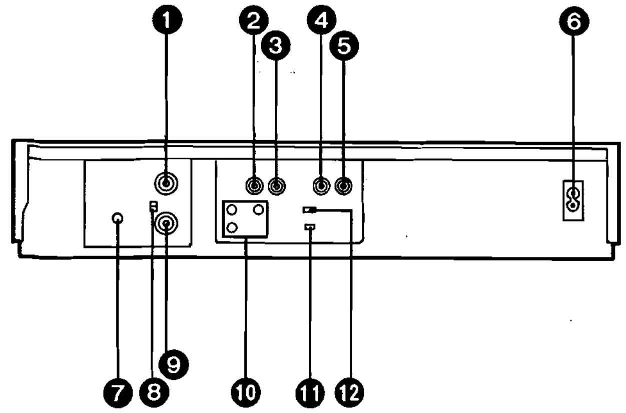
⑪ Counter Mode Indicator

⑫ Search Indicator

⑬ Memory Indicator

⑭ Clock/Counter Display

REAR



① RF Output Connector

② Audio Input Jack

③ Video Input Jack

④ Audio Output Jack

⑤ Video Output Jack

⑥ AC Power Cord Connector

⑦ Video Playback Channel Adjustor

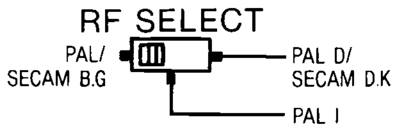
⑧ RF Signal Level Switch

⑨ RF Input Connector

⑩ Vertical Lock Controls

⑪ Blue Back Switch

⑫ RF Selector Switch

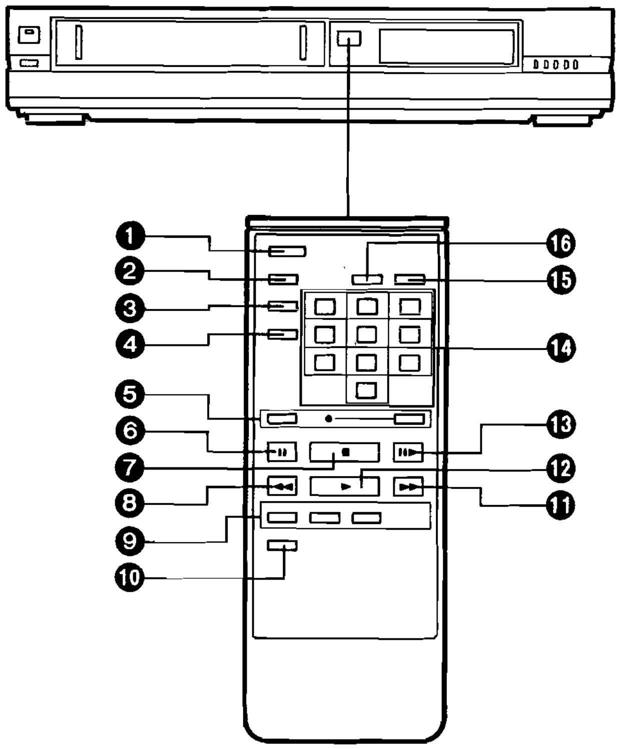


RF Selector Switch

Set this selector to the "PAL/SECAM B•G", "PAL I" or "PAL D/SECAM D•K" position, depending on the type of PAL/SECAM colour system used for TV broadcasts in your area.

PAL-B•G: Continental Europe, Oceania, India, Pakistan, Indonesia, Thailand, Malaysia, Singapore
PAL-I: U.K., Hong Kong, Ireland, South Africa
PAL-D: China
SECAM B•G: Middle and Near East, East Germany
SECAM D•K: Eastern Europe, USSR

For receiving NTSC broadcasts with the System Selectors set to "AUTO" or "NTSC", the RF Selector can be set to any position.



① **Power On/Off Button**

② **Clock/Counter Selector**

③ **Memory/Search Button**

④ **Reset Button**

⑤ **Record Button (●)**
To start recording, press the two buttons simultaneously.

⑥ **Pause/Still Button (❚❚)**

⑦ **Stop Button (■)**

⑧ **Rewind ◀◀/Review [◀◀] Button**

⑨ **Slow Buttons**

⑩ **Reverse Play Button**

⑪ **Fast Forward ▶▶/Cue [▶▶] Button**

⑫ **Play Button (▶)**

⑬ **Frame Advance Button (❚❚▶)**

⑭ **Programme Position Selector Buttons**

⑮ **Time Search Button**

⑯ **+/− Button**

DISASSEMBLY PROCEDURES

1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

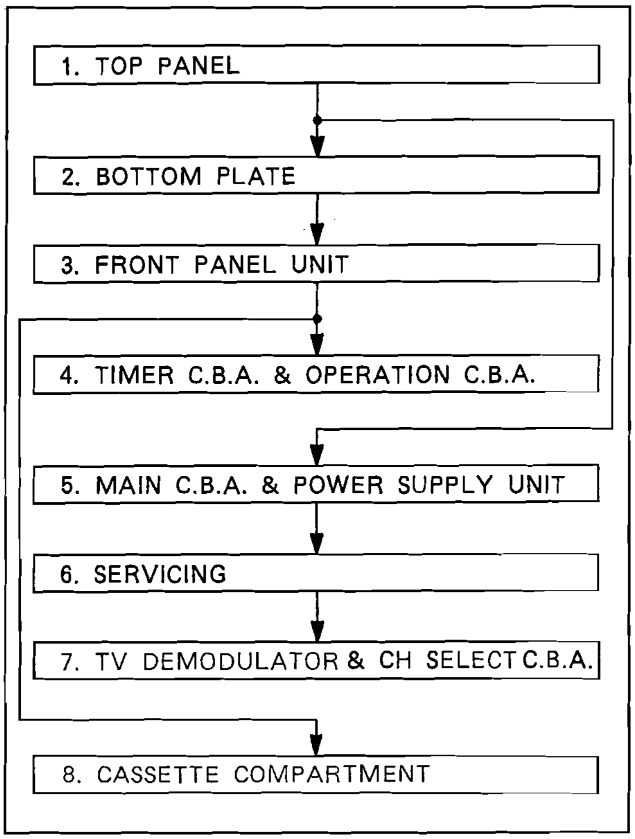

1. TOP PANEL
2. BOTTOM PLATE
3. FRONT PANEL UNIT
4. TIMER C.B.A. & OPERATION C.B.A.
5. MAIN C.B.A. & POWER SUPPLY UNIT
6. SERVICING
7. TV DEMODULATOR & CH SELECT C.B.A.
8. CASSETTE COMPARTMENT

Fig. D1

2. DETAILED DISASSEMBLY METHOD

1. REMOVAL OF THE TOP PANEL UNIT

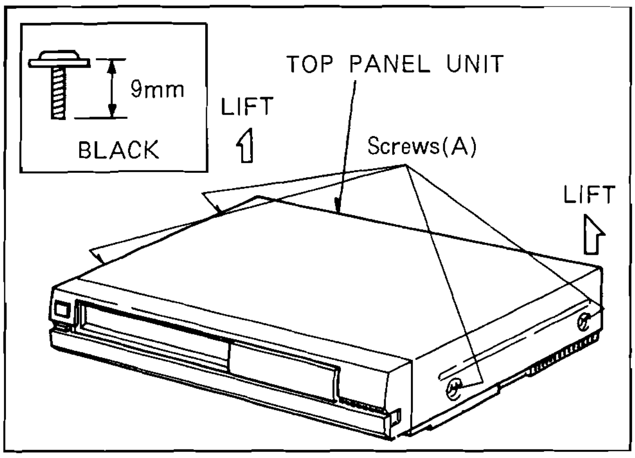

9mm
BLACK
LIFT
TOP PANEL UNIT
Screws(A)
LIFT

Fig. D2

Remove ... 4 Screws (A)

2. REMOVAL OF THE BOTTOM PLATE

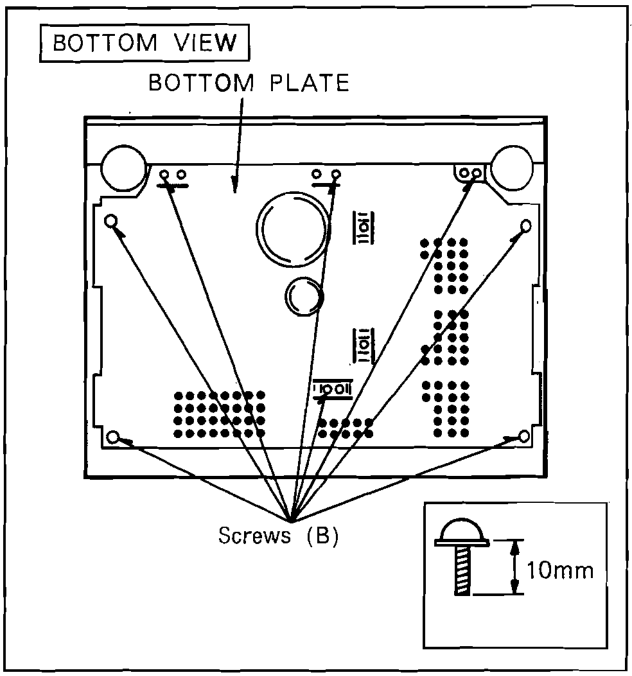

BOTTOM VIEW
BOTTOM PLATE
Screws (B)
10mm

Fig. D3

Remove ... 8 Screws (B)

3. REMOVAL OF THE FRONT PANEL UNIT

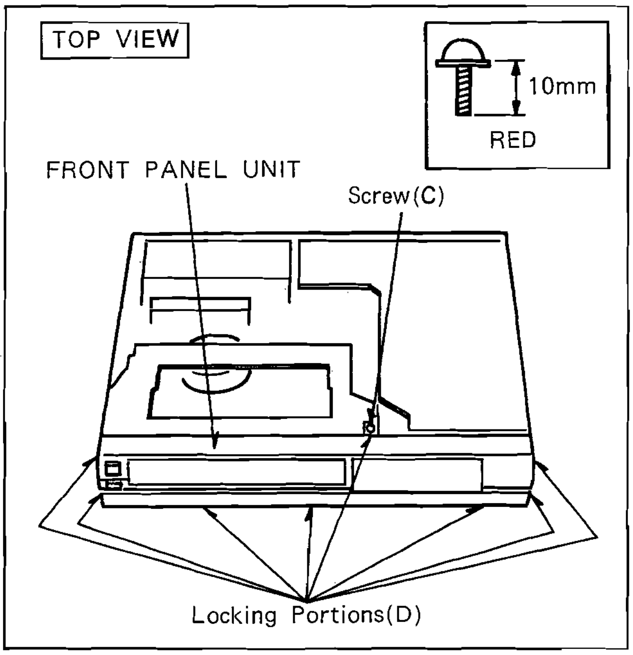

TOP VIEW
10mm
RED
FRONT PANEL UNIT
Screw(C)
Locking Portions(D)

Fig. D4

Remove ... Screw(C)
Unlock ... 8 Locking Portions(D)

4. REMOVAL OF THE TIMER C.B.A. AND OPERATION C.B.A.

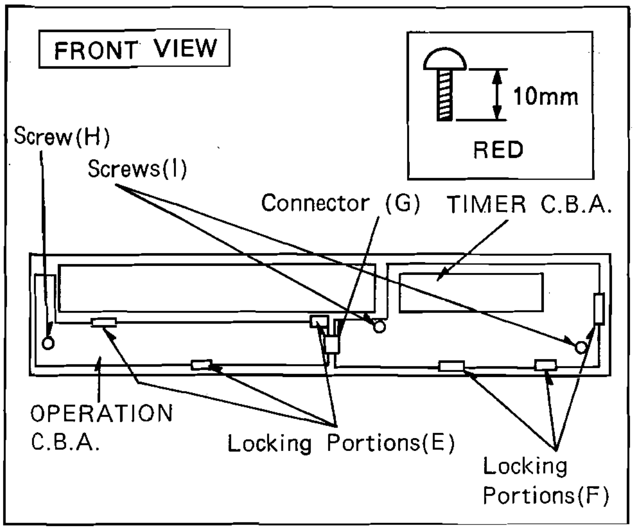

FRONT VIEW
10mm
RED
Screw(H)
Screws(I)
Connector (G)
TIMER C.B.A.
OPERATION C.B.A.
Locking Portions(E)
Locking Portions(F)

Fig.D5

REMOVAL OF THE OPERATION C.B.A.

Remove ... Screw(H)
Disconnect ... Connector(G)
Unlock ... 3 Locking Portions(E)

REMOVAL OF THE TIMER C.B.A.

Remove ... 2 Screws(I)
Unlock ... 3 Locking Portions(F)

Note: HOW TO REMOVE THE CONNECTOR (G)

When removing the connector(G), carefully lift the top portions(J) of connector to remove.

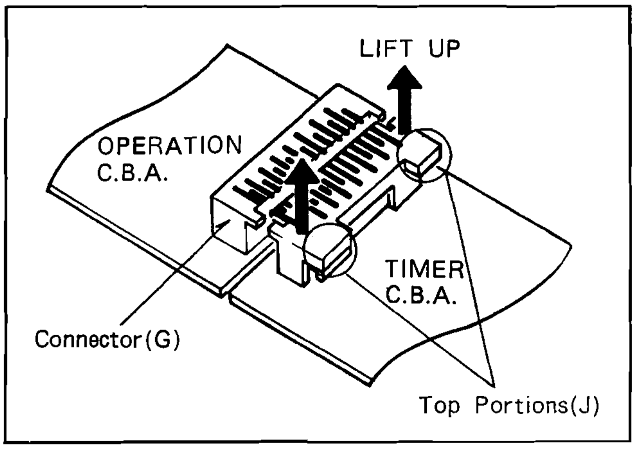

LIFT UP
OPERATION C.B.A.
TIMER C.B.A.
Connector(G)
Top Portions(J)

Fig. D6

NOTE:
If the connector is turned for checking the Operation C.B.A. and Timer C.B.A., the short circuit could be made between lead wires.
Be sure there is no short circuit between lead wires and check the borth Operation & Timer C.B.A.

5. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

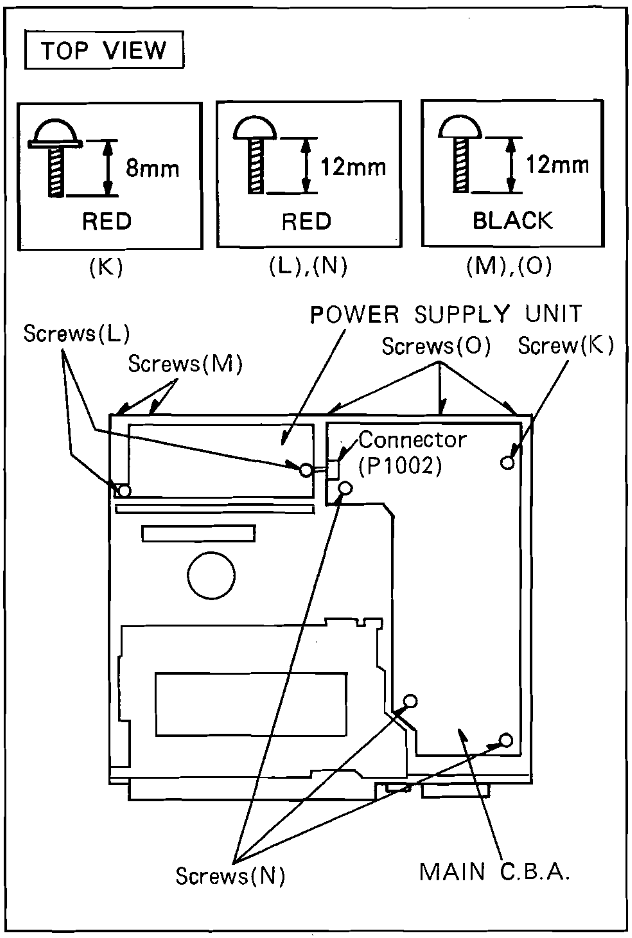

TOP VIEW
8mm
RED
(K)
12mm
RED
(L),(N)
12mm
BLACK
(M),(O)
Screws(L)
Screws(M)
POWER SUPPLY UNIT
Screws(O)
Screw(K)
Connector (P1002)
Screws(N)
MAIN C.B.A.

Fig. D7

REMOVAL OF THE MAIN C.B.A.

Remove ... 3 Screws(N),3 Screws(O) and Screw(K)
Disconnect ... Connector(P1002)

REMOVAL OF THE POWER SUPPLY UNIT

Remove ... 2 Screws(L) and 2 Screws(M)

6. SERVICING

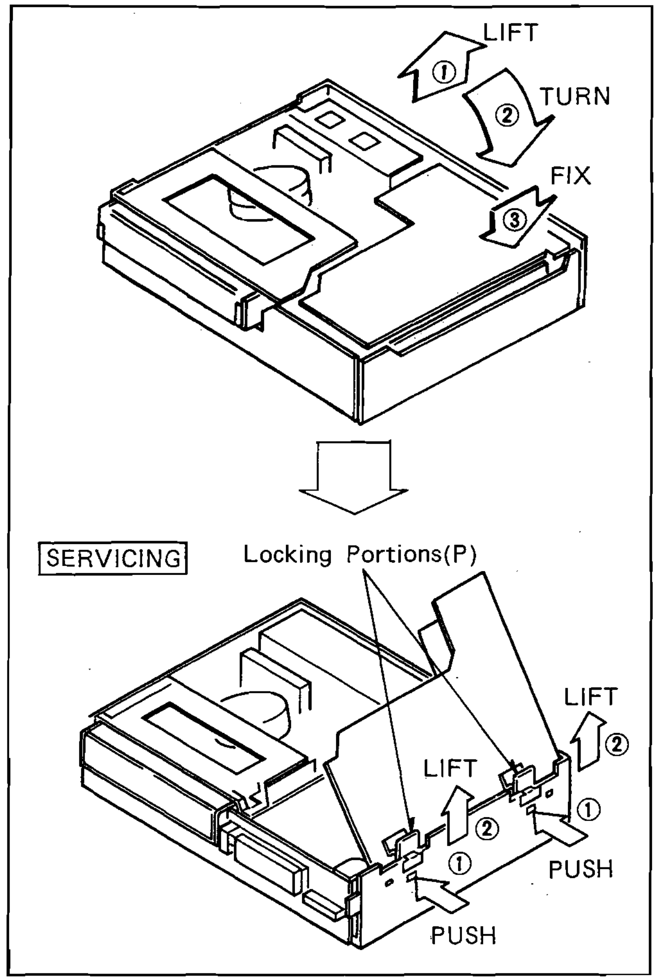

LIFT
①
②
TURN
FIX
③
SERVICING
Locking Portions(P)
LIFT
②
LIFT
②
①
①
PUSH
PUSH

Fig. D8

7. REMOVAL OF THE TV DEMODULATOR & CH SELECT C.B.A.

Remove ... 2 Screws(Q)
Unlock ... 2 Locking Portions(P) and
2 Locking Portions(R)

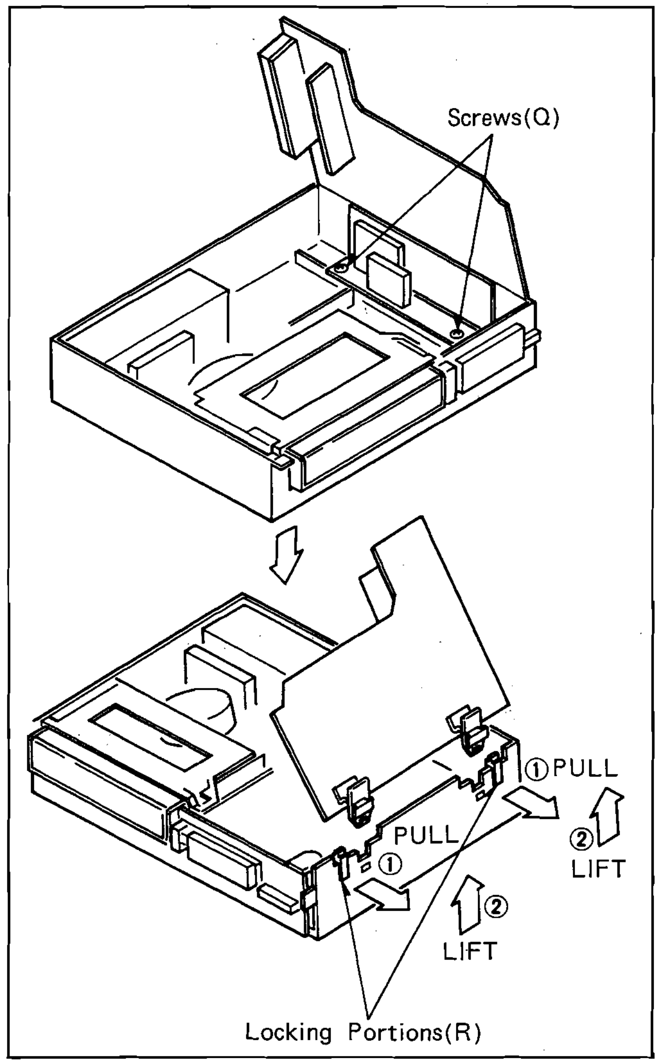

Screws(Q)
①PULL
②
LIFT
PULL
①
②
LIFT
Locking Portions(R)

Fig. D9

8. REMOVAL OF THE CASSETTE COMPARTMENT

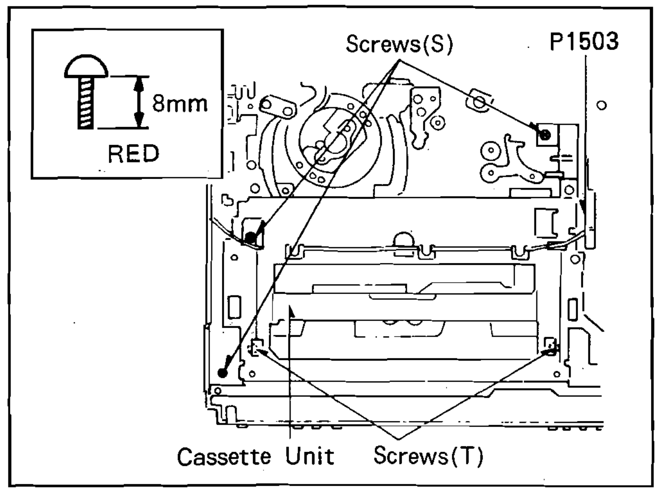

8mm
RED
Screws(S)
P1503
Cassette Unit
Screws(T)

Fig. D10

Remove the 3 screws(S).
Slide the cassette holder unit appearing 2 screws(T) by turning (clockwise) the Capstan Rotor Unit (located in the bottom side as shown in Fig. D11) and remove the 2 screws(T).
Remove the wire cable from connector P1503 mounted on Take-up Photo Tr. C.B.A.,then carefully pull out the Cassette Compartment.

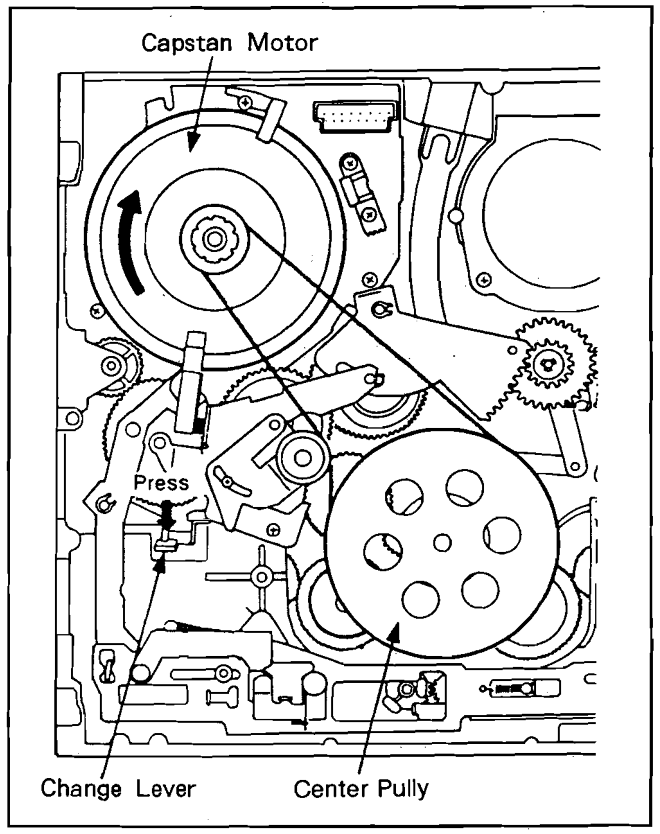
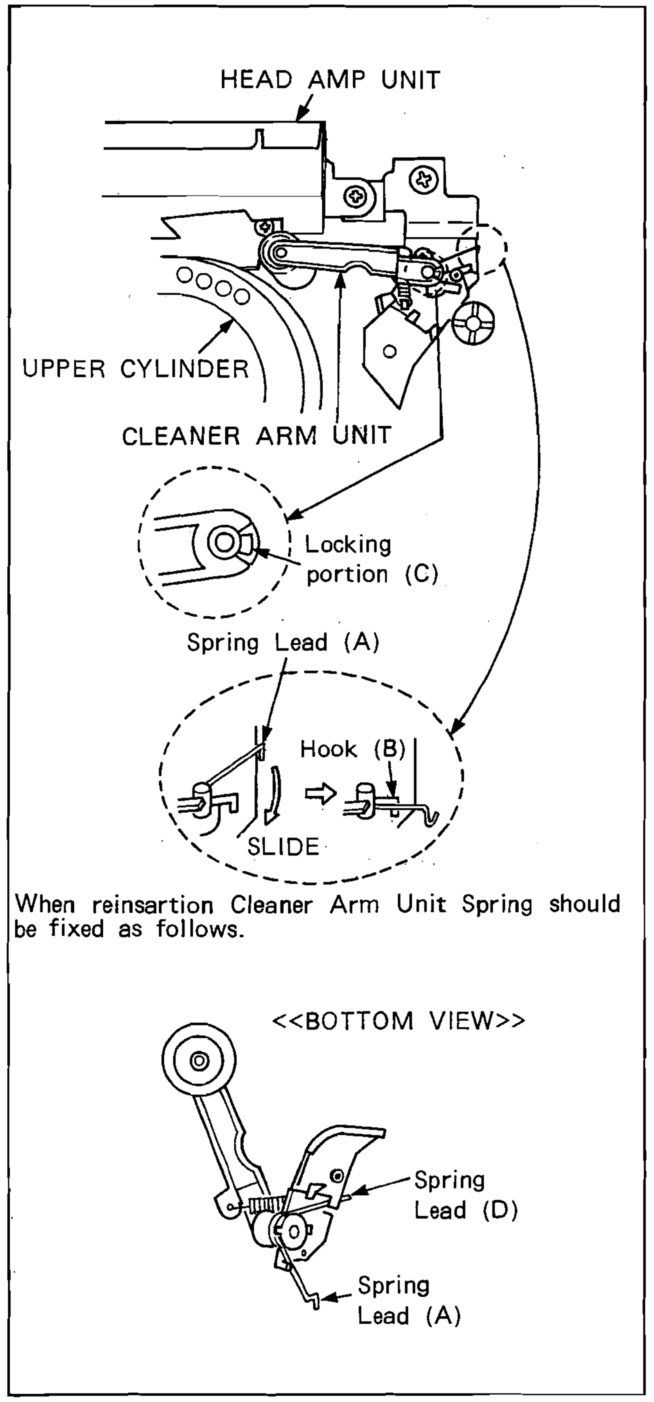

Capstan Motor
Press
Change Lever
Center Pully

Fig. D11

3. DISASSEMBLY PROCEDURES OF CLEANER ARM UNIT

1. Hook up the Spring Lead (A) to lower side of Hook (B) .
2. Unlock the locking portion (C) and then remove the Cleaner Arm Unit.

NOTE :
(1) Assembly procedure fllow the reverse order.
(2) When replacing Upper Cylinder, replace Creaner Arm at the same time.


HEAD AMP UNIT
UPPER CYLINDER
CLEANER ARM UNIT
Locking portion (C)
Spring Lead (A)
Hook (B)
SLIDE
<<BOTTOM VIEW>>
Spring Lead (D)
Spring Lead (A)

When reinsartion Cleaner Arm Unit Spring should be fixed as follows.

Fig . D12

Remove the 3 screws(S).
Slide the cassette holder unit appearing 2 screws(T) by turning (clockwise) the Capstan Rotor Unit (located in the bottom side as shown in Fig. D11) and remove the 2 screws(T).
Remove the wire cable from connector P1503 mounted on Take-up Photo Tr. C.B.A.,then carefully pull out the Cassette Compartment.

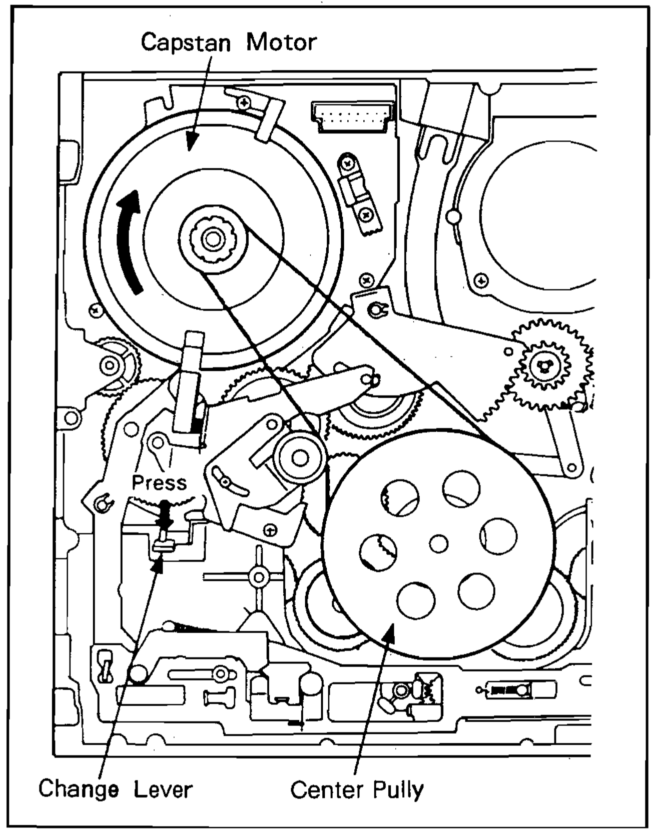
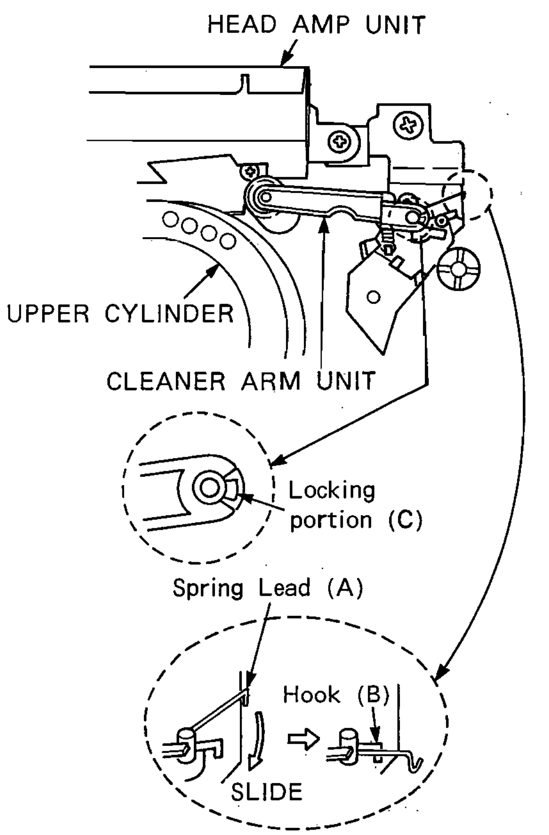

Capstan Motor
Press
Change Lever
Center Pully

Fig. D11

3. DISASSEMBLY PROCEDURES OF CLEANER ARM UNIT

1. Hook up the Spring Lead (A) to lower side of Hook (B) .
2. Unlock the locking portion (C) and then remove the Cleaner Arm Unit.

NOTE :
(1) Assembly procedure fllow the reverse order.
(2) When replacing Upper Cylinder, replace Creaner Arm at the same time.


HEAD AMP UNIT
UPPER CYLINDER
CLEANER ARM UNIT
Locking portion (C)
Spring Lead (A)
Hook (B)
SLIDE

When reinsartion Cleaner Arm Unit Spring should be fixed as follows.

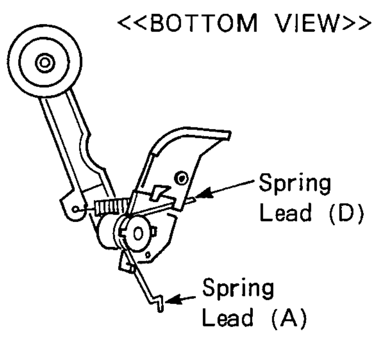

<<BOTTOM VIEW>>
Spring Lead (D)
Spring Lead (A)

Fig . D12

1. ASSEMBLY & ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not fixed properly, the unit will be unloaded or compulsorily stopped.
And it will result being damaged at any mechanical or electrical parts.
The overall mechanical condition (alignment) of bottom and top view are shown in Figure M1 and Figure M2. This mechanical adjustment is performed in STOP mode.

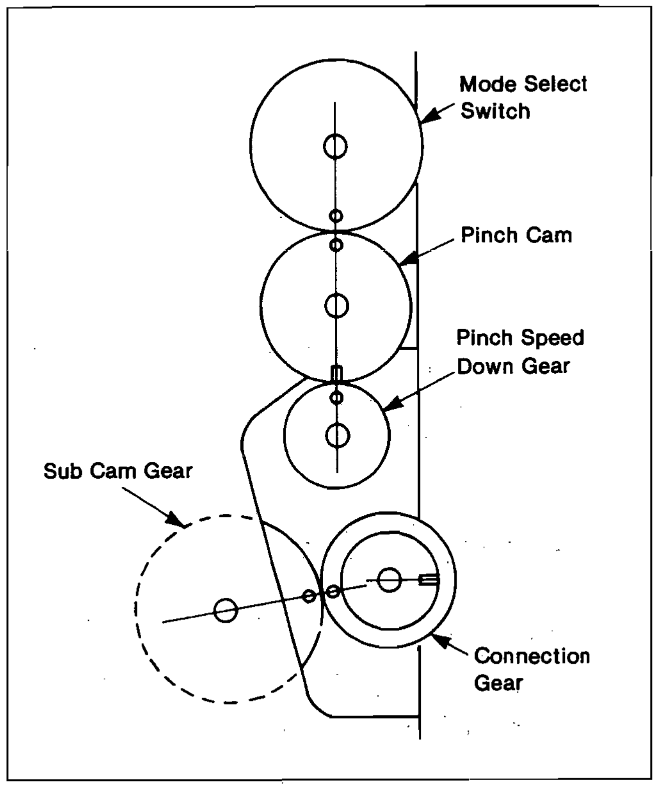

Mode Select Switch
Pinch Cam
Pinch Speed Down Gear
Sub Cam Gear
Connection Gear

Figure M1 Bottom View of Overall G–Mechanical Condition

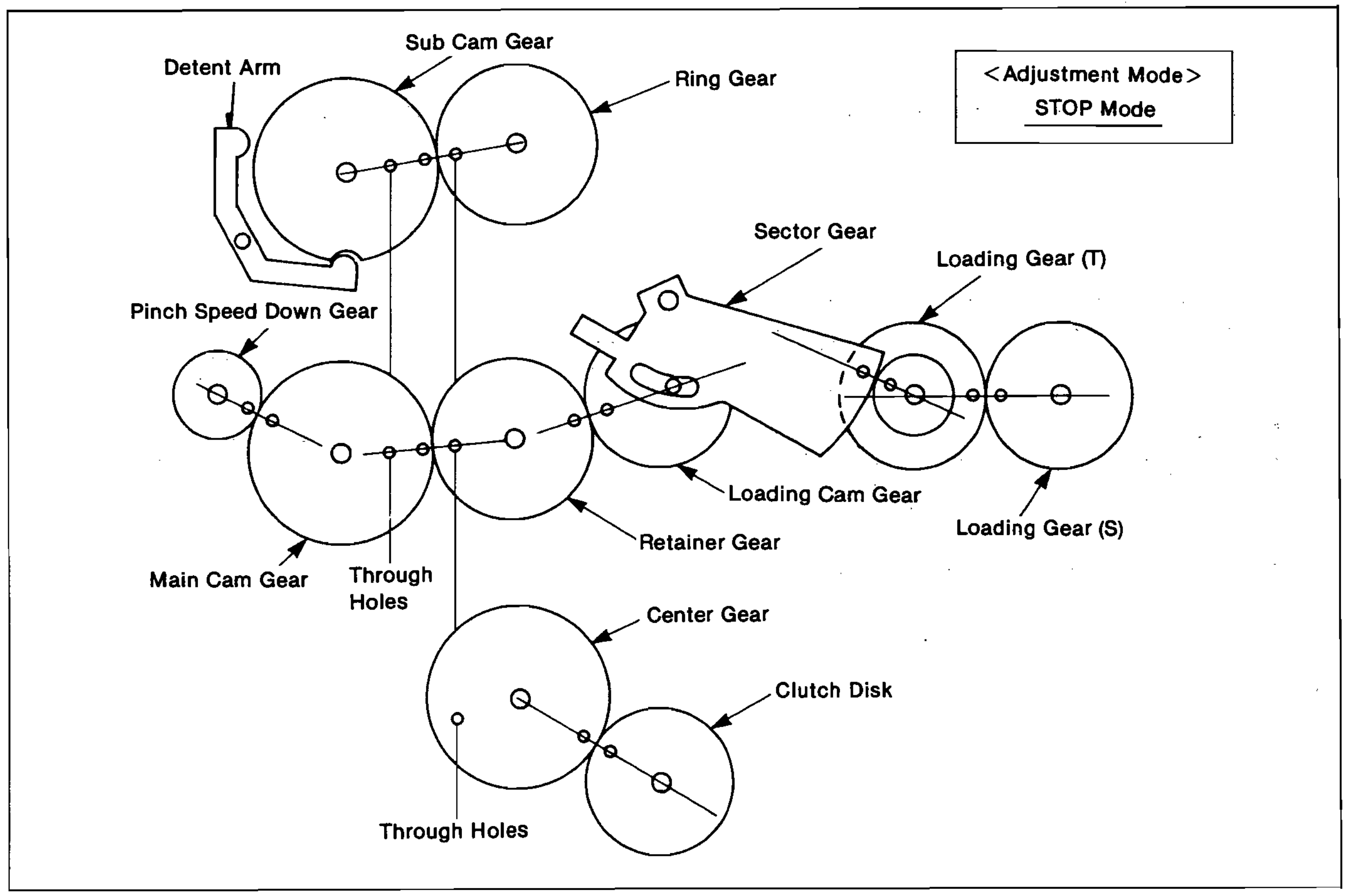
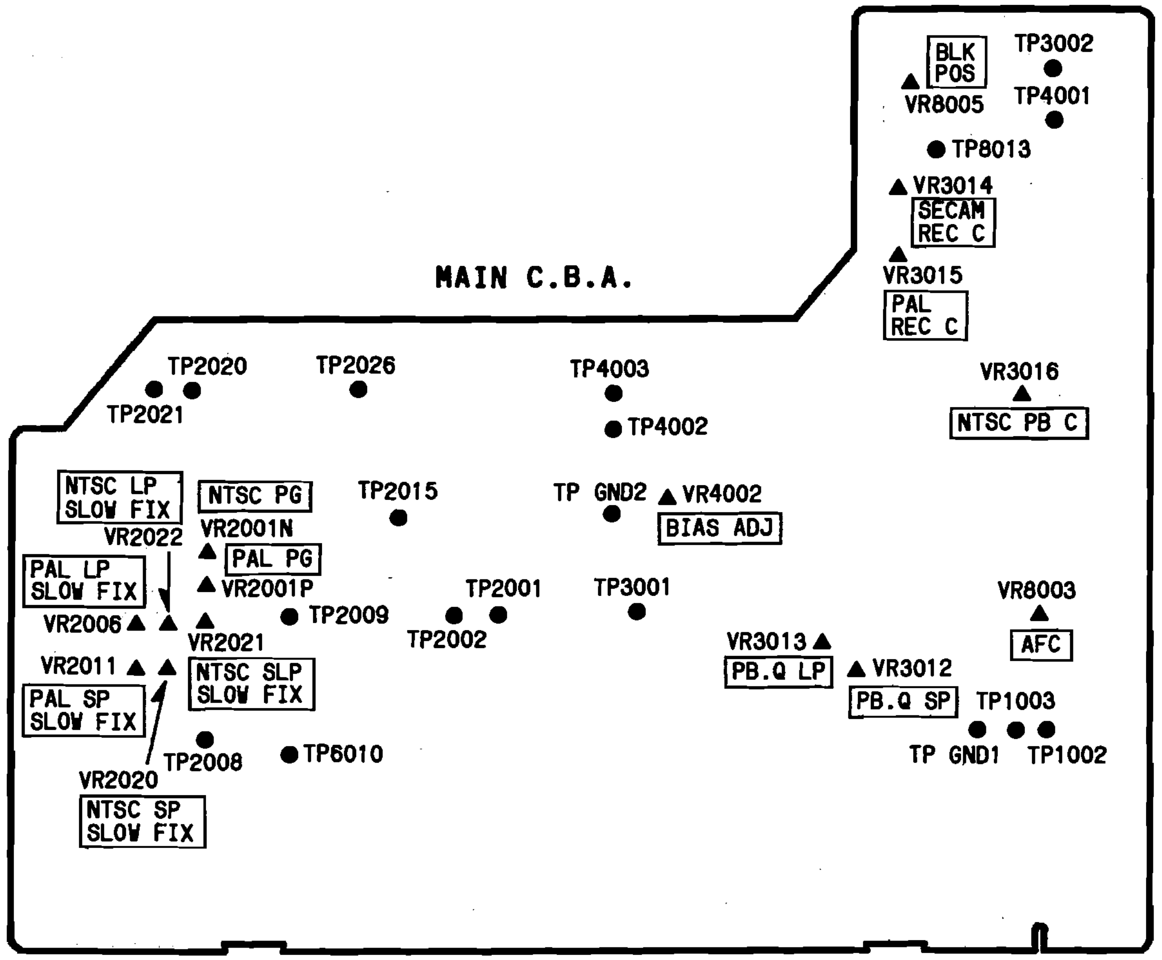
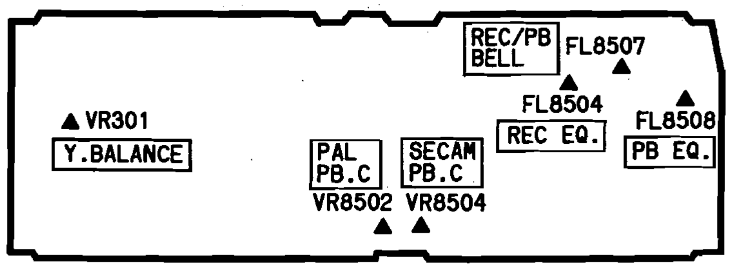

Detent Arm
Sub Cam Gear
Ring Gear
<Adjustment Mode>
STOP Mode
Sector Gear
Loading Gear (T)
Pinch Speed Down Gear
Loading Cam Gear
Loading Gear (S)
Retainer Gear
Main Cam Gear
Through Holes
Center Gear
Clutch Disk
Through Holes

Figure M2 Top View of Overall Mechanical Condition

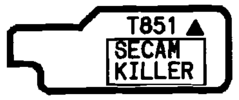
LOCATION OF TEST POINTS & CONTROLS


MAIN C.B.A.
BLK POS
VR8005
TP3002
TP4001
TP8013
VR3014
SECAM REC C
VR3015
PAL REC C
TP2020
TP2021
TP2026
TP4003
TP4002
VR3016
NTSC PB C
NTSC LP SLOW FIX
VR2022
NTSC PG
VR2001N
TP2015
TP GND2
VR4002
BIAS ADJ
PAL LP SLOW FIX
PAL PG
VR2001P
VR2006
VR2021
TP2009
TP2001
TP2002
TP3001
VR8003
AFC
VR2011
NTSC SLP SLOW FIX
VR3013
PB.Q LP
VR3012
PB.Q SP
TP1003
PAL SP SLOW FIX
TP2008
TP6010
TP GND1
TP1002
VR2020
NTSC SP SLOW FIX

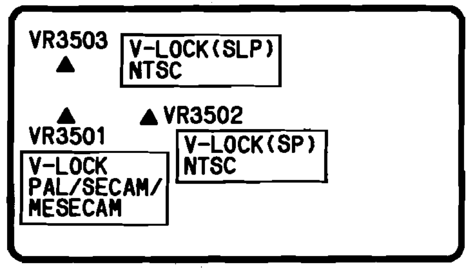
LUMINANCE & CHROMINANCE PACK C.B.A.


REC/PB BELL
FL8507
FL8504
FL8508
VR301
Y.BALANCE
REC EQ.
PB EQ.
PAL PB.C
SECAM PB.C
VR8502
VR8504

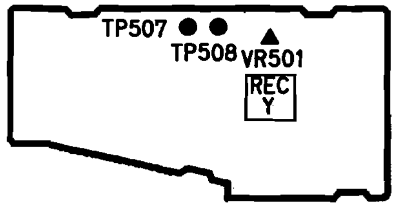
DDR SECAM PACK C.B.A.


T851
SECAM KILLER

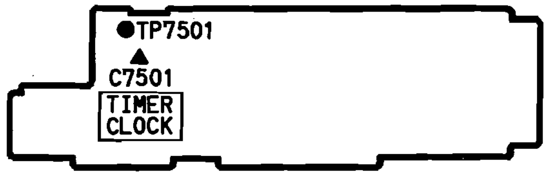
INPUT/OUTPUT PACK C.B.A.


VR3503
V-LOCK(SLP) NTSC
VR3501
VR3502
V-LOCK(SP) NTSC
V-LOCK PAL/SECAM/ MESECAM

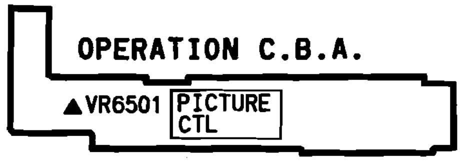
HEAD AMP C.B.A.


TP507
TP508
VR501
REC Y

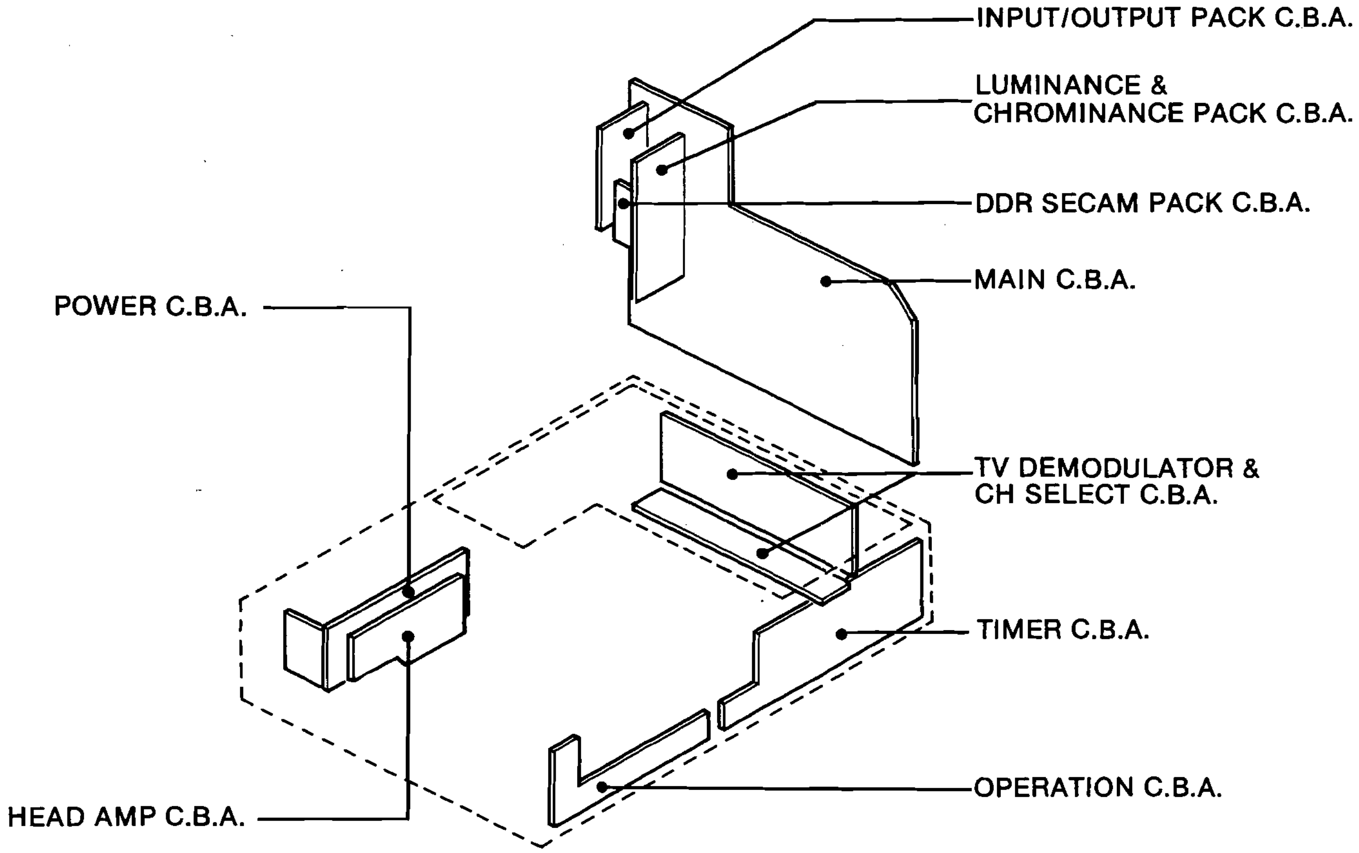
TIMER C.B.A.

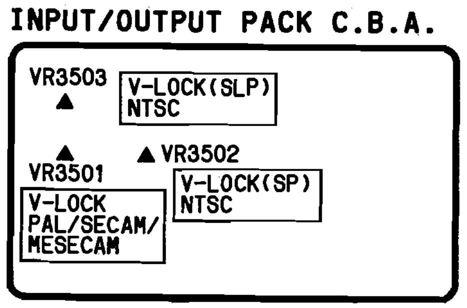

TP7501
C7501
TIMER CLOCK

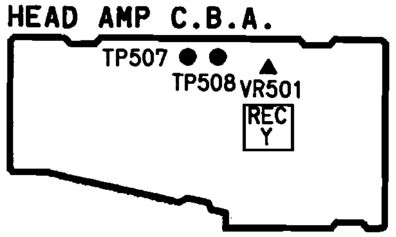
OPERATION C.B.A.

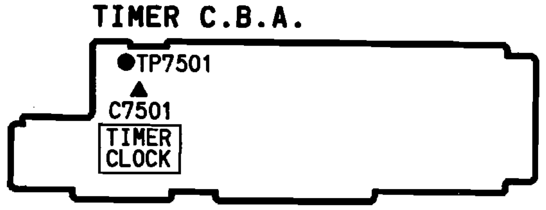

VR6501
PICTURE CTL

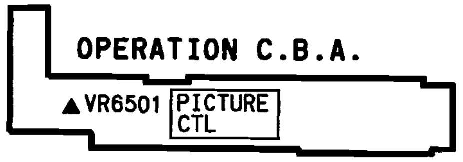
CIRCUIT BOARD LAYOUT


INPUT/OUTPUT PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
DDR SECAM PACK C.B.A.
MAIN C.B.A.
POWER C.B.A.
TV DEMODULATOR & CH SELECT C.B.A.
TIMER C.B.A.
OPERATION C.B.A.
HEAD AMP C.B.A.

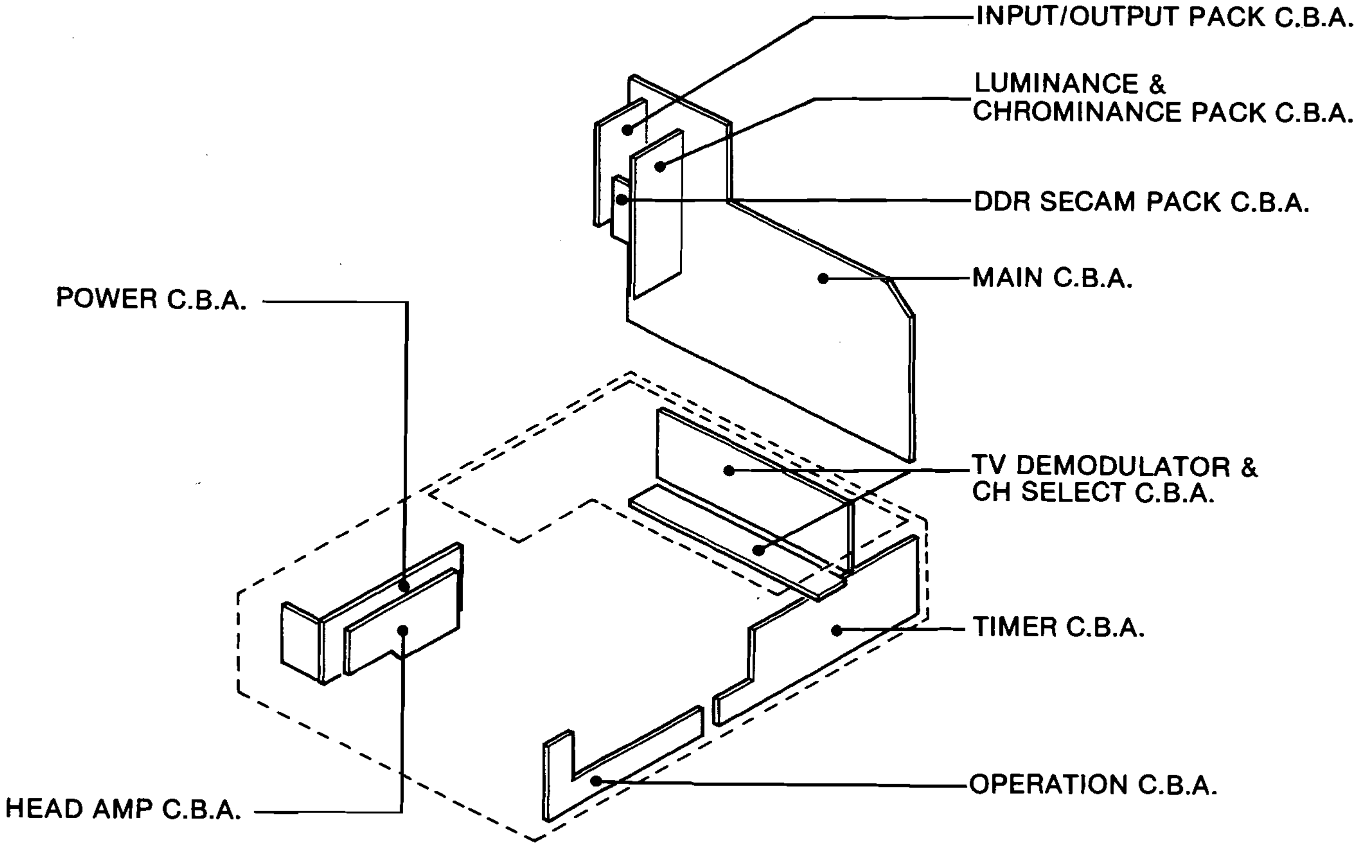

INPUT/OUTPUT PACK C.B.A.
VR3503
V-LOCK(SLP)
NTSC
VR3501
VR3502
V-LOCK(SP)
NTSC
V-LOCK
PAL/SECAM/
MESECAM


HEAD AMP C.B.A.
TP507
TP508
VR501
REC
Y


TIMER C.B.A.
TP7501
C7501
TIMER
CLOCK


OPERATION C.B.A.
VR6501
PICTURE
CTL

CIRCUIT BOARD LAYOUT


INPUT/OUTPUT PACK C.B.A.
LUMINANCE &
CHROMINANCE PACK C.B.A.
DDR SECAM PACK C.B.A.
MAIN C.B.A.
POWER C.B.A.
TV DEMODULATOR &
CH SELECT C.B.A.
TIMER C.B.A.
OPERATION C.B.A.
HEAD AMP C.B.A.

ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorders **NV-J700PX**.

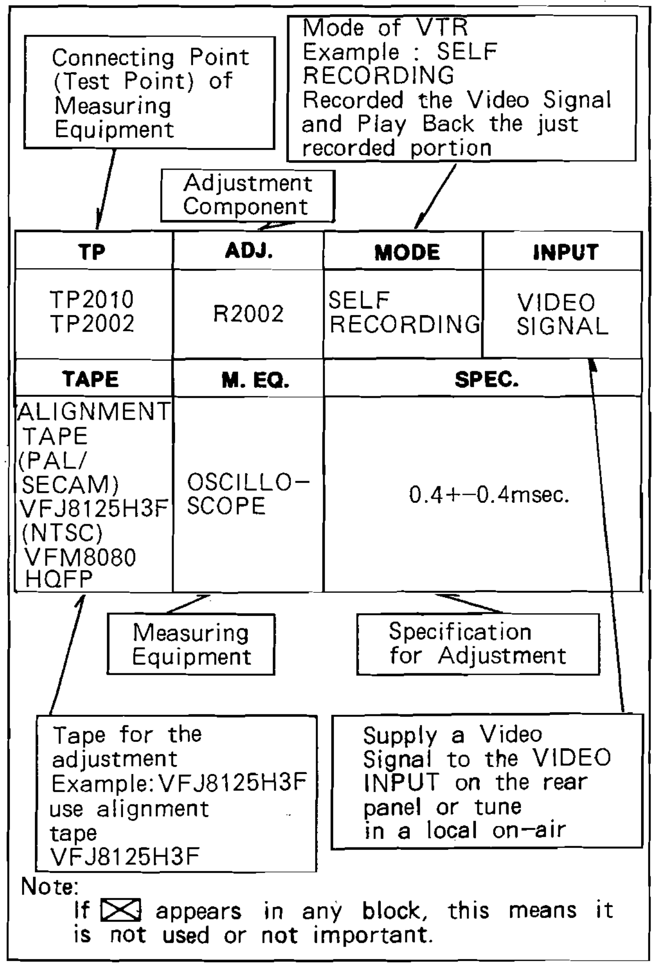
1. TEST & SERVICE EQUIPMENT

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001～50V
2. Dual-Trace Oscilloscope
   Voltage Range: 0.005～50V/div.
   Frequency Range: DC～30MHz
   Probes: 10:1 or 1:1
3. Universal Counter
4. Signal Generator (Sinewave)
   Frequency Range: 0～500KHz
5. Video Sweep Generator
   Frequency Range: 0～10MHz
6. Colour Monitor TV
7. Plastic Tip Driver
8. VHS Alignment Tape
   (PAL/SECAM: VFJ8125H3F)
   (NTSC: VFM8080HQFP)

2. ADJUSTMENT PROCEDURES

2-1. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR Example : SELF RECORDING Recorded the Video Signal and Play Back the just recorded portion
Adjustment Component
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

TP	ADJ.	MODE	INPUT
TP2010 TP2002	R2002	SELF RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (PAL/ SECAM) VFJ8125H3F (NTSC) VFM8080 HQFP	OSCILLO-SCOPE	0.4+-0.4msec.	

Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

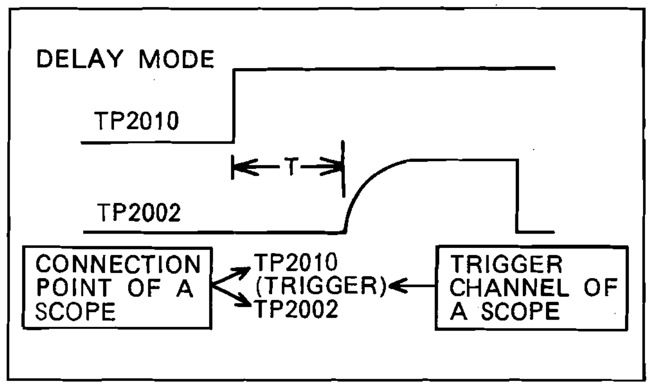

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

NOTE:

Before the electrical adjustment, set the VHS VTR as following conditions except for especial instructions in each adjustment item.

1) Picture Sharpness Control...Centre Fix Position
2) Tape speed select switch...SP Position
3) Noise Filter/Edit Switch...OFF Position
4) Digital Tracking On/Off Switch...ON Position
5) System select switch...AUTO Position.

2-2. SERVO SECTION

2-2-1. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002 (VIDEO OUT)	VR2001	PLAY	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (PAL/ SECAM) VFJ8125H3F (NTSC) VFM8080 HQFP	OSCILLO-SCOPE	6.5+-0.5H	

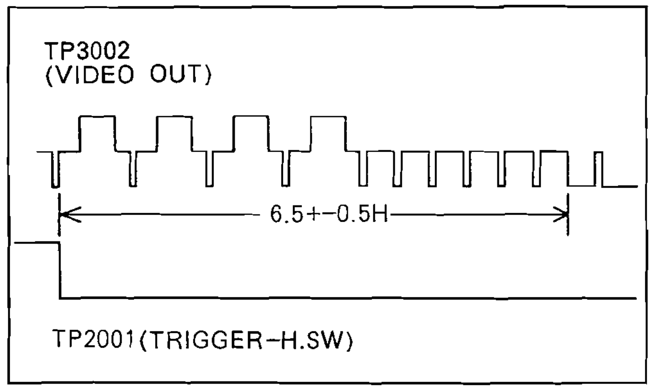

TP3002
(VIDEO OUT)
6.5+-0.5H
TP2001(TRIGGER-H.SW)

Fig. E3

2-2-2. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	(PAL/SECAM) VR3501 (NTSC-SP) VR3502 (NTSC-SLP) VR3503	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR	NO V-DANCING	

<<PAL/SECAM>>

1. Record the Video Signal in SP Mode and Playback the just recorded portion and place the deck in STILL mode.
2. Adjust VR3501 so that the V-dancing does not appear on the TV monitor screen.

<<NTSC>>

1. Record the Video Signal in SP Mode and Playback the just recorded portion and place the deck in STILL Mode.
2. Adjust VR3502 so that the V-dancing does not appear on the TV monitor screen.
3. Record the Video Signal in SLP Mode and Playback the just recorded portion and place the deck in STILL Mode.
4. Adjust VR3503 so that the V-dancing does not appear on the TV monitor screen.

2-2-3. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	(PAL-SP) VR2011 (PAL-LP) VR2006 (NTSC-SP) VR2020 (NTSC-LP) VR2022 (NTSC-SLP) VR2021	SLOW	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR	DOES NOT APPEAR THE NOISE UPPER SIDE AND LOWER SIDE ON TV SCREEN	

<<PAL>>

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the slow button.
2. Adjust VR2011 so that the noise does not appear the noise upper side or lower side on TV screen.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the slow button.
4. Adjust VR2006 so that the noise does not appear the noise, upper side or lower side on TV screen.

<<NTSC>>

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the slow button.
2. Adjust VR2020 so that the noise does not appear the noise ,upper side or lower side on TV screen.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the slow button.
4. Adjust VR2022 so that the noise does not appear the noise, upper side or lower side on TV screen.
5. Record the Colour Bar in SLP Mode and playback the just recorded portion. Then place the slow button.
6. Adjust VR2021 so that the noise does not appear the noise, upper side or lower side on TV screen.

2-3. LUMINANCE, CHROMINANCE & HEAD AMP SECTION

2-3-1. LUMINANCE RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR501	RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	130+-5mVp-p	

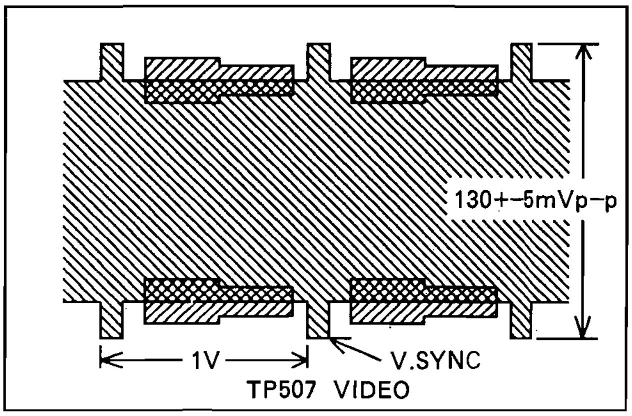


Fig. E4

2-3-2. CHROMINANCE RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	(PAL) VR3015 (SECAM) VR3014	RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	32+–3mVp–p	

<<PAL>>

1. Set the SYSTEM SELECT SW to AUTO position.
2. Connect the oscilloscope to TP507(HOT) and TP508(GND).
3. Connect a jumper wire between P3001–1 and GND. And then place the unit to Recording mode.
4. Adjust VR3015, so that chroma level becomes 32+–3mVp–p.

<<SECAM>>

1. Set the SYSTEM SELECT SW to SECAM position.
2. Connect the oscilloscope to TP507(HOT) and TP508(GND).
3. Connect a jumper wire between P3001–1 and GND. And then place the unit to Recording mode.
4. Adjust VR3014, so that chroma level becomes 32+–3mVp–p.

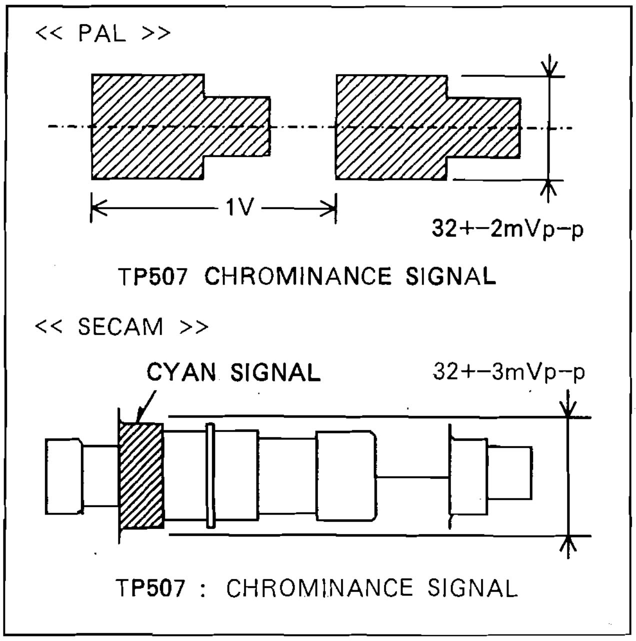

<< PAL >>
1V
32+–2mVp–p
TP507 CHROMINANCE SIGNAL
<< SECAM >>
CYAN SIGNAL
32+–3mVp–p
TP507 : CHROMINANCE SIGNAL

Fig. E5

2-3-3. PLAYBACK CHROMA LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002 (VIDEO OUT)	(PAL) VR8502 (SECAM) VR8504 (NTSC) VR3016	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	(PAL) 0.55+–0.05Vp–p (SECAM) 0.21+–0.025Vp–p (NTSC) 0.60+–0.05Vp–p	

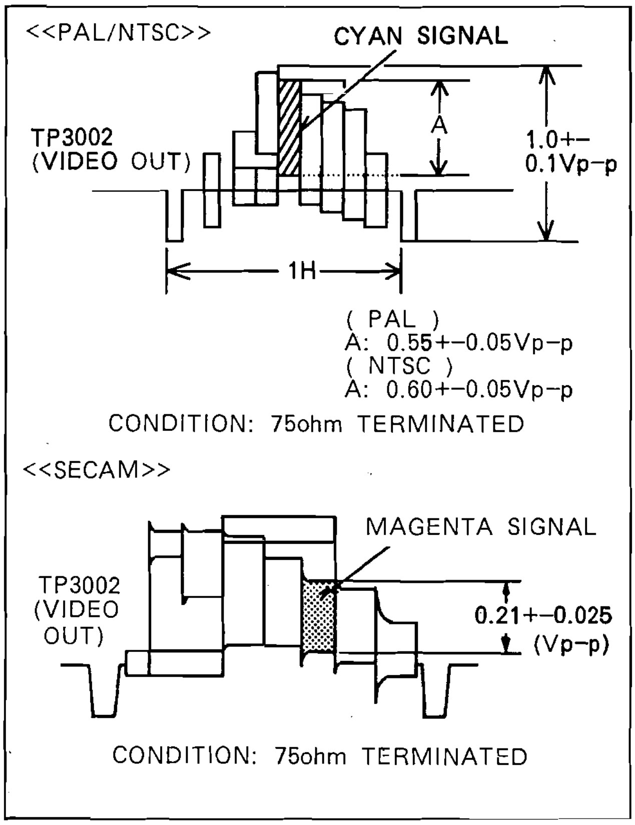

<<PAL/NTSC>>
CYAN SIGNAL
TP3002
(VIDEO OUT)
A
1.0+–
0.1Vp–p
1H
(PAL)
A: 0.55+–0.05Vp–p
(NTSC)
A: 0.60+–0.05Vp–p
CONDITION: 75ohm TERMINATED
<<SECAM>>
MAGENTA SIGNAL
TP3002
(VIDEO
OUT)
0.21+–0.025
(Vp–p)
CONDITION: 75ohm TERMINATED

Fig. E6

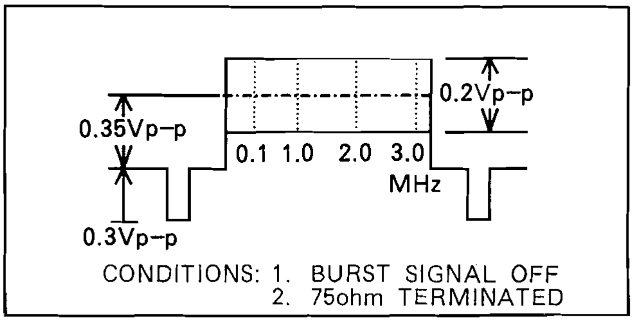
NOTE:
(PAL/NTSC)
* Set the SYSTEM SELECT SW to "AUTO" position.
(SECAM)
* Set the SYSTEM SELECT SW to "SECAM" position.

2-3-4. HEAD AMP FREQUENCY RESPONSE ADJUSTMENT

<< PAL >>

TP	ADJ.	MODE	INPUT
TP3002 (VIDEO OUT)	VR3012(SP) VR3013(LP)	SELF RECORDING	VIDEO SWEEP
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE	A=0+−1dB(90∼110%)	

1. Set the sweep generator output as shown in below.



CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E7

2. Picture Sharpness Control is centre fix position.
3. Connect a jumper wire between Y/C pack−Pin 7 and GND.
4. Play back the just recorded portion, and then adjust the VR3012:SP(VR3013:LP) so that the waveform becomes as shown in below.

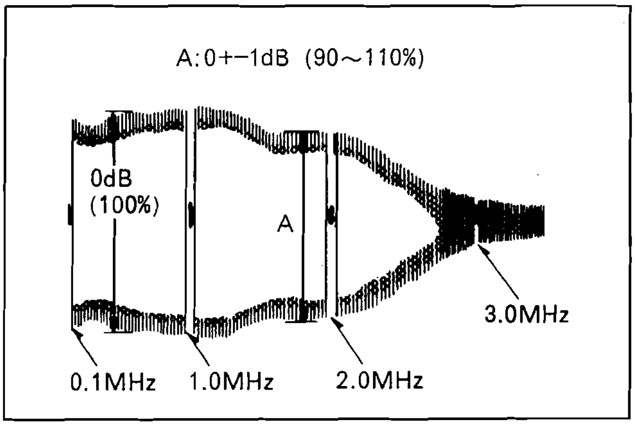


Fig. E8

2-3-5. MESECAM KILLER ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC851−11	T851	RECORDING	SECAM VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	Portion A is peak to negative direction.	

1. Set the SYSTEM SELECT Switch to AUTO position.
2. Playback the just recorded portion.
3. Adjust T851 so that the portion "A" becomes maximum waveform.

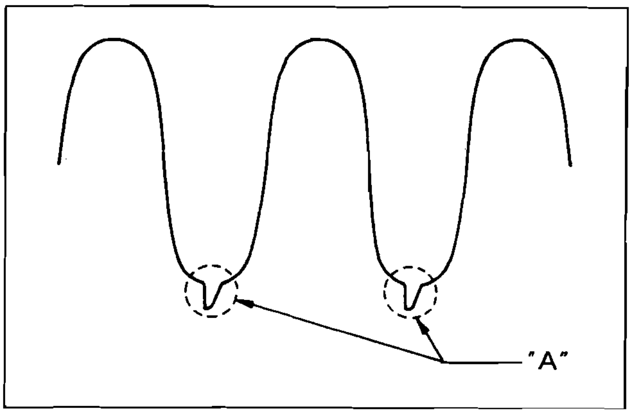


Fig. E9

2-3-6. REC BELL FILTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
Q8509−(E)	FL8507	REC	SINEWAVE (4.286MHz, 400mVp−p)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GEN/ OSCILLO-SCOPE	WAVEFORM IS MAXIMIZED	

1. Supply the sinewave(4.286MHz) to Y/C Pack−Pin 3 so that the signal level becomes 400mVp−p.
2. Connect the oscilloscope to Q8509−(E).
3 Adjust FL8507 so that the waveform is maximized.

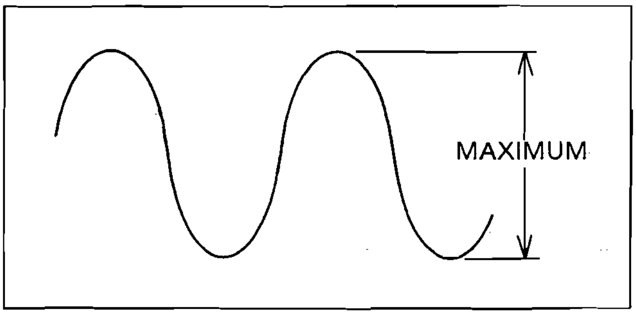


Fig. E10

2-3-7. AFC FREE-RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3004–9	VR8003	STOP	8KHz/–10dB (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	15735+–100Hz	

1. Connect a jumper wire between 5V line and IC3004–15.
2. Connect the frequency counter to IC3004–9.
3. Adjust VR8003 for 15735+–100Hz.

2-3-8. Y-NR BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302–17	VR301	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Set the SYSTEM SELECT Switch to AUTO position.
2. Connect the oscilloscope to IC302–17.
3. Connect the 1500pF of capacitor between IC302–17 and GND.
4. Adjust VR301 so that the waveform is minimized.

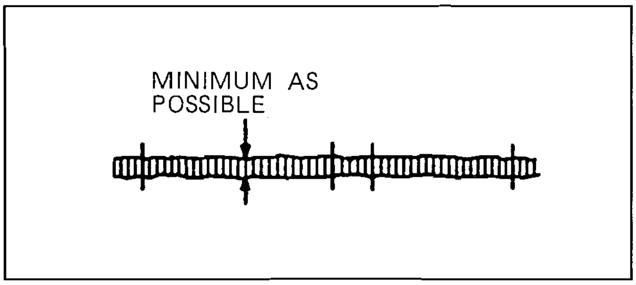


Fig. E11

2-3-9. BLANKING PULSE PHASE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002 Y/C PACK–33	VR8005	REC	VIDEO SIGNAL (SECAM COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=1.2+–0.2usec	

1. Set the SYSTEM SELECT Switch to SECAM
2. Adjust VR8005 so that the width "T" becomes 1.2+–0.2usec as shown below.

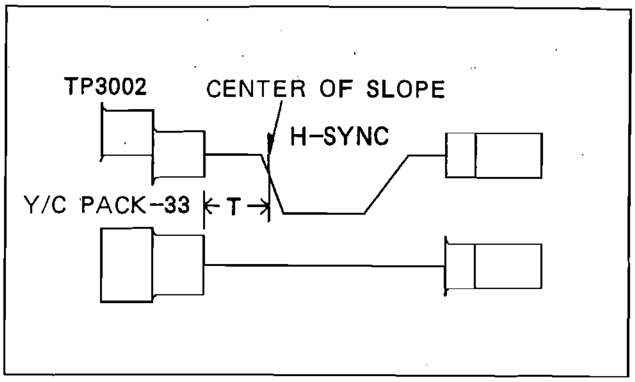


Fig. E12

2-4. AUDIO SECTION

2-4-1. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002(+) TP4003(–)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.4+–0.1mVrms	

2-5. TIMER SECTION

NOTE: Do not connect the AC power plug.

2-5-1. TIMER REFERENCE CLOCK ADJUSTMENT

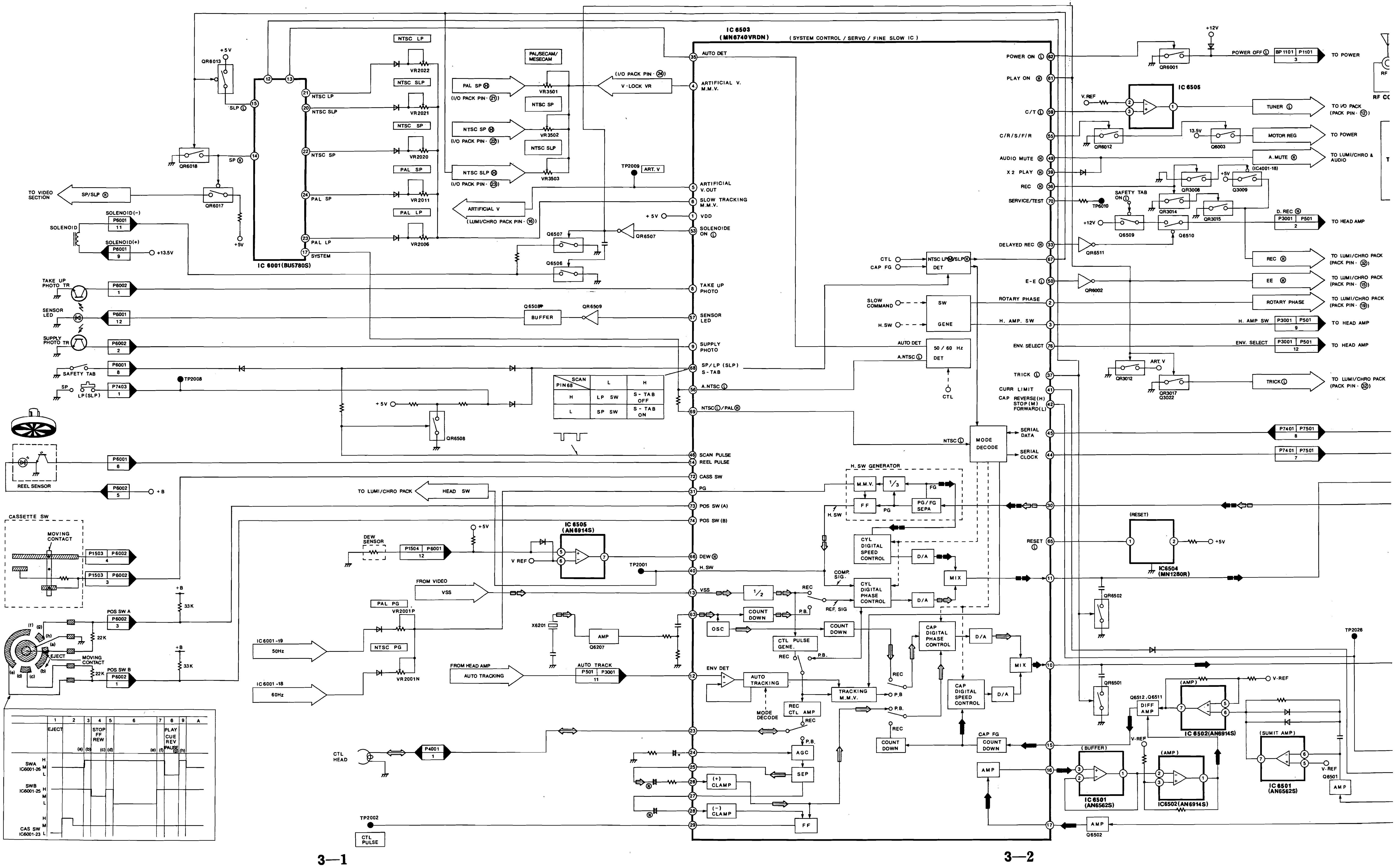
TP	ADJ.	MODE	INPUT
TP7501	C7501		
TAPE	**M. EQ.**	**SPEC.**	
	UNIVERSAL COUNTER	488.2812+–0.001us	

1. Connect a jumper wire between P7501–6 and 4.
2. Connect a jumper wire between P7501–5 and GND.
3. Connect a diode(MA165) between IC7501–36 and 56.

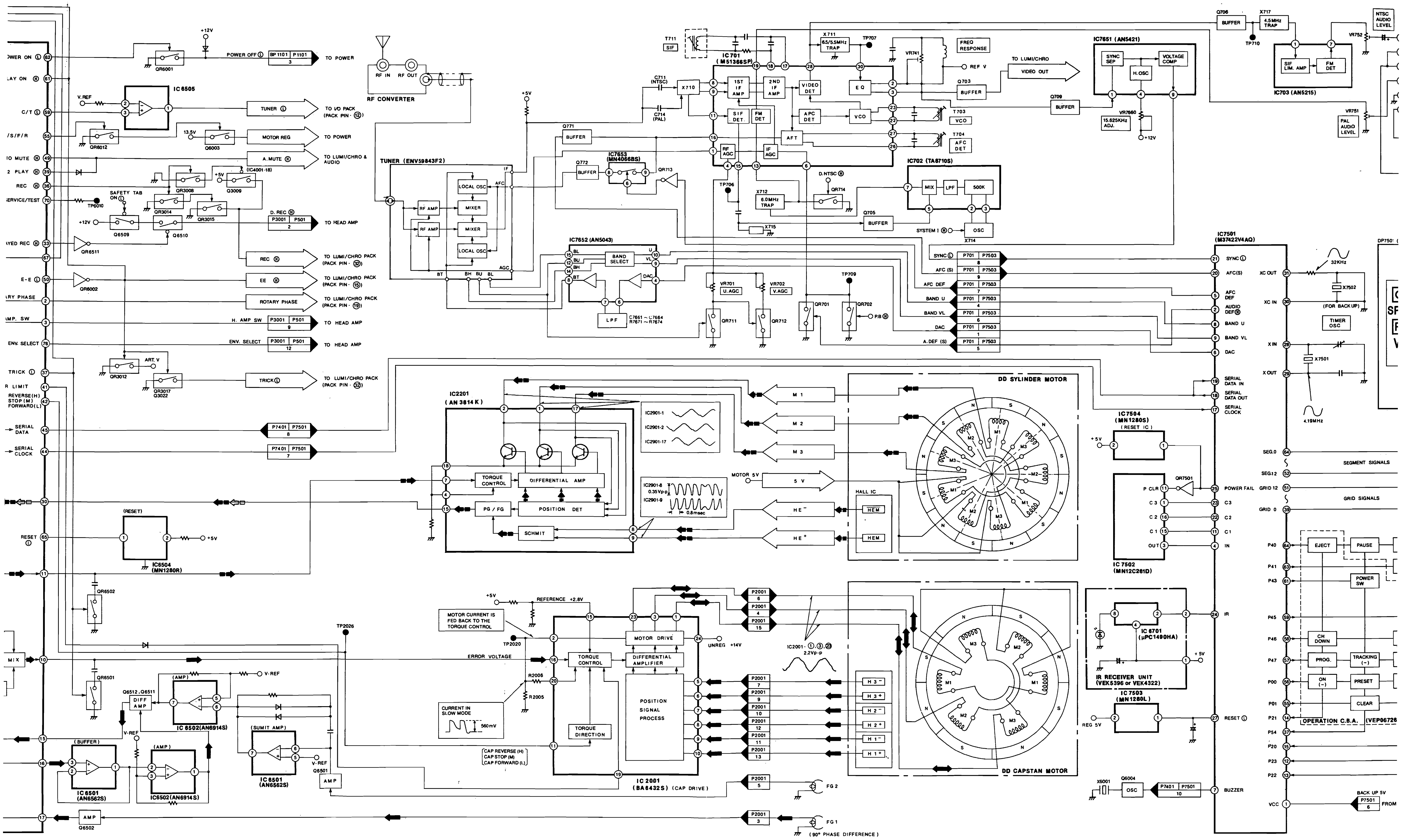
SYSTEM CONTROL & SERVO BLOCK DIAGRAM

CAPSTAN SERVO SPEED LOOP

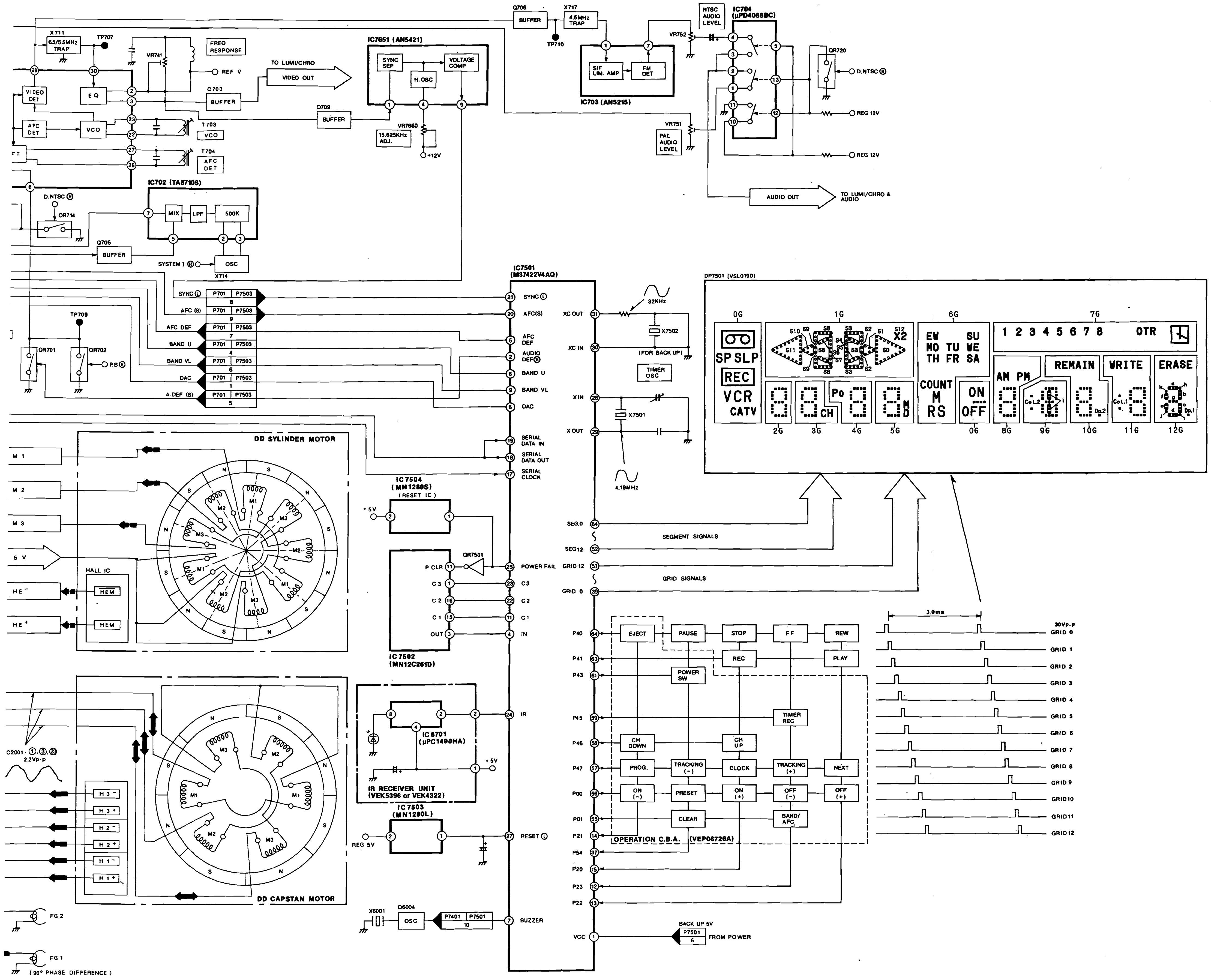
CAPSTAN SERVO PHASE LOOP


IC 6503
(MN6740VRDN)
(SYSTEM CONTROL / SERVO / FINE SLOW IC)
IC 6001 (BU5780S)
QR6013
+5V
SLP Ⓛ
SP Ⓗ
QR6018
QR6017
TO VIDEO SECTION
SP/SLP Ⓗ
SOLENOID
SOLENOID(−)
SOLENOID(+)
P6001
+13.5V
NTSC LP
NTSC SLP
NTSC SP
PAL SP
PAL LP
SYSTEM
VR2022
VR2021
VR2020
VR2011
VR2006
PAL/SECAM/ MESECAM
PAL SP Ⓗ
(I/O PACK PIN · ㉑)
NTSC SP Ⓗ
(I/O PACK PIN · ㉒)
NTSC SLP Ⓗ
(I/O PACK PIN · ㉓)
VR3501
VR3502
VR3503
(I/O PACK PIN · ㉔)
V·LOCK VR
ARTIFICIAL V
(LUMI/CHRO PACK PIN · ⑯)
TP2009
ART. V
Q6507
QR6507
Q6506
AUTO DET
ARTIFICIAL V. M.M.V.
ARTIFICIAL V.OUT
SLOW TRACKING M.M.V.
VDD
SOLENOIDE ON Ⓛ
TAKE UP PHOTO
SENSOR LED
SUPPLY PHOTO
SP/LP (SLP) S-TAB
A.NTSC Ⓛ
NTSCⓁ/PALⒽ
SCAN PULSE
REEL PULSE
CASS SW
PG
POS SW (A)
POS SW (B)
DEW Ⓗ
H. SW
VSS
TAKE UP PHOTO TR
P6002
SENSOR LED
Q6508
BUFFER
QR6509
SUPPLY PHOTO TR
SAFETY TAB
SP
LP(SLP)
P7403
TP2008
QR6508
SCAN PIN68 | L | H
H | LP SW | S-TAB OFF
L | SP SW | S-TAB ON
REEL SENSOR
+B
TO LUMI/CHRO PACK
HEAD SW
CASSETTE SW
MOVING CONTACT
P1503
POS SW A
POS SW B
33K
22K
EJECT
DEW SENSOR
P1504
IC 6505 (AN6914S)
V REF
TP2001
FROM VIDEO
VSS
PAL PG
VR2001P
NTSC PG
VR2001N
IC6001-19
50Hz
IC6001-18
60Hz
X6201
AMP
Q6207
FROM HEAD AMP
AUTO TRACKING
AUTO TRACK
P501
P3001
CTL HEAD
P4001
TP2002
CTL PULSE
EJECT | STOP FF REW | PLAY CUE REV PAUSE
SWA IC6001-26
SWB IC6001-25
CAS SW IC6001-23
1 2 3 4 5 6 7 8 9 A
H M L
H. SW GENERATOR
M.M.V.
1/3
FG
FF
PG/FG SEPA
CYL DIGITAL SPEED CONTROL
CYL DIGITAL PHASE CONTROL
D/A
MIX
1/2
COUNT DOWN
OSC
P.B.
REC
REF. SIG
COMP. SIG.
CTL PULSE GENE.
ENV DET
AUTO TRACKING
TRACKING M.M.V.
MODE DECODE
REC CTL AMP
AGC
SEP
(+) CLAMP
(−) CLAMP
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG
CTL
CAP FG
NTSC LPⒽ/SLPⒽ DET
SLOW COMMAND
SW GENE
H.SW
AUTO DET
A.NTSC Ⓛ
50 / 60 Hz DET
NTSC Ⓛ
MODE DECODE
POWER ON Ⓛ
PLAY ON Ⓗ
C/T Ⓛ
C/R/S/F/R
AUDIO MUTE Ⓗ
X2 PLAY Ⓗ
REC Ⓗ
SERVICE/TEST
TP6010
DELAYED REC Ⓗ
QR6511
E-E Ⓛ
QR6002
ROTARY PHASE
H. AMP. SW
ENV. SELECT
TRICK Ⓛ
CURR LIMIT
CAP REVERSE(H) STOP(M) FORWARD(L)
SERIAL DATA
SERIAL CLOCK
RESET Ⓛ
+12V
QR6001
POWER OFF Ⓛ
BP1101
P1101
TO POWER
IC 6505
V.REF
TUNER Ⓛ
TO I/O PACK (PACK PIN · ⑫)
QR6012
13.5V
Q6003
MOTOR REG
A. MUTE Ⓗ
TO LUMI/CHRO & AUDIO
(IC4001-18)
QR3008
Q3009
SAFETY TAB ON Ⓛ
QR3014
QR3015
Q6509
Q6510
D. REC Ⓗ
TO HEAD AMP
REC Ⓗ
TO LUMI/CHRO PACK (PACK PIN · ㉜)
EE Ⓗ
TO LUMI/CHRO PACK (PACK PIN · ⑮)
ROTARY PHASE
TO LUMI/CHRO PACK (PACK PIN · ⑲)
H. AMP SW
ENV. SELECT
ART. V
QR3012
QR3017 Q3022
TRICK Ⓛ
TO LUMI/CHRO PACK (PACK PIN · ㉜)
P7401
P7501
(RESET)
IC6504 (MN1280R)
QR6502
TP2026
QR6501
Q6512 , Q6511
DIFF AMP
(AMP)
IC 6502(AN6914S)
(SUMIT AMP)
(BUFFER)
IC 6501 (AN6562S)
IC6502(AN6914S)
IC 6501 (AN6562S)
Q6501
Q6502
RF
RF CC

⇦ CAPSTAN SERVO PHASE LOOP ◀■ CYLINDER SERVO SPEED LOOP ⇦□ CYLINDER SERVO PHASE LOOP

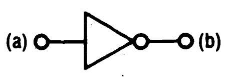

IC6505
QR6001
POWER OFF Ⓛ
TO POWER
TUNER Ⓛ
TO I/O PACK (PACK PIN · ⑫)
MOTOR REG
A. MUTE Ⓗ
TO LUMI/CHRO & AUDIO
SAFETY TAB ON Ⓛ
D. REC Ⓗ
TO HEAD AMP
REC Ⓗ
TO LUMI/CHRO PACK (PACK PIN · ㉜)
EE Ⓗ
TO LUMI/CHRO PACK (PACK PIN · ⑮)
ROTARY PHASE
TO LUMI/CHRO PACK (PACK PIN · ⑲)
H. AMP SW
ENV. SELECT
ART. V
TRICK Ⓛ
IC6504 (MN1280R)
(RESET)
RF CONVERTER
RF IN
RF OUT
TUNER (ENV59843F2)
RF AMP
MIXER
LOCAL OSC
AFC
AGC
IC7653 (MN4066BS)
IC7652 (AN5043)
BAND SELECT
LPF
IC701 (M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
SIF DET
FM DET
APC DET
VCO
EQ
AFT
RF AGC
IF AGC
X711 6.5/5.5MHz TRAP
X712 6.0MHz TRAP
FREQ RESPONSE
REF V
TO LUMI/CHRO
VIDEO OUT
IC7651 (AN5421)
SYNC SEP
H.OSC
VOLTAGE COMP
VR7660 15.625KHz ADJ.
IC702 (TA8710S)
MIX
500K
OSC
SYSTEM I Ⓗ
IC703 (AN5215)
SIF LIM. AMP
FM DET
X717 4.5MHz TRAP
NTSC AUDIO LEVEL
PAL AUDIO LEVEL
IC7501 (M37422V4AQ)
SYNC Ⓛ
AFC (S)
AFC DEF
BAND U
BAND VL
DAC
A. DEF (S)
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
POWER FAIL
RESET Ⓛ
BUZZER
32KHz
4.19MHz
TIMER OSC
(FOR BACK UP)
SEGMENT SIGNALS
GRID SIGNALS
IC7504 (MN1280S) (RESET IC)
IC7502 (MN12C261D)
IC6701 (μPC1490HA)
IR RECEIVER UNIT (VEK5396 or VEK4322)
IC7503 (MN1280L)
EJECT
PAUSE
POWER SW
CH DOWN
PROG.
TRACKING (−)
ON (−)
PRESET
CLEAR
OPERATION C.B.A. (VEP06726
BACK UP 5V
IC2201 (AN3814K)
TORQUE CONTROL
DIFFERENTIAL AMP
PG / FG
POSITION DET
SCHMIT
DD SYLINDER MOTOR
M1
M2
M3
HALL IC
HEM
HE⁻
HE⁺
MOTOR 5V
IC2901-8 0.35Vp-p
0.8msec
IC2001 (BA6432S) (CAP DRIVE)
MOTOR DRIVE
DIFFERENTIAL AMPLIFIER
TORQUE CONTROL
POSITION SIGNAL PROCESS
TORQUE DIRECTION
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
REFERENCE +2.8V
ERROR VOLTAGE
UNREG +14V
CURRENT IN SLOW MODE
560mV
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
IC2001 · ①, ③, ㉓ 2.2Vp-p
DD CAPSTAN MOTOR
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
FG 2
FG 1
(90° PHASE DIFFERENCE)
IC6501 (AN6562S)
IC6502 (AN6914S)
(BUFFER)
(AMP)
(SUMIT AMP)
DIFF AMP
Q6512, Q6511
V-REF
AMP
Q6502
MIX

NDER SERVO PHASE LOOP


X711
6.5/5.5MHz TRAP
TP707
VR741
FREQ RESPONSE
TO LUMI/CHRO
VIDEO OUT
REF V
VIDEO DET
EQ
Q703
BUFFER
APC DET
VCO
T703
VCO
T704
AFC DET
Q709
BUFFER
IC7651 (AN5421)
SYNC SEP
H.OSC
VOLTAGE COMP
VR7660
15.625KHz ADJ.
+12V
Q706
BUFFER
X717
4.5MHz TRAP
TP710
SIF LIM. AMP
FM DET
IC703 (AN5215)
NTSC AUDIO LEVEL
VR752
IC704 (μPD4066BC)
QR720
D.NTSC Ⓗ
REG 12V
VR751
PAL AUDIO LEVEL
REG 12V
AUDIO OUT
TO LUMI/CHRO & AUDIO
D.NTSC Ⓗ
QR714
IC702 (TA8710S)
MIX
LPF
500K
Q705
BUFFER
SYSTEM I Ⓗ
OSC
X714
SYNC Ⓛ
AFC (S)
AFC DEF
BAND U
BAND VL
DAC
A.DEF (S)
P701
P7503
TP709
QR701
QR702
P.B Ⓗ
IC7501 (M37422V4AQ)
SYNC Ⓛ
AFC(S)
AFC DEF
AUDIO DEF Ⓗ
BAND U
BAND VL
DAC
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
XC OUT
XC IN
X IN
X OUT
32KHz
X7502
(FOR BACK UP)
TIMER OSC
X7501
4.19MHz
DP7501 (VSL0190)
0G
1G
6G
7G
SP SLP
REC
VCR
CATV
CH
Po
EW SU
MO TU WE
TH FR SA
COUNT
M
RS
ON
OFF
1 2 3 4 5 6 7 8
OTR
AM PM
REMAIN
WRITE
ERASE
X2
2G
3G
4G
5G
0G
8G
9G
10G
11G
12G
DD SYLINDER MOTOR
M 1
M 2
M 3
5 V
HALL IC
HE⁻
HE⁺
HEM
IC7504 (MN1280S) (RESET IC)
+5V
QR7501
IC7502 (MN12C261D)
P CLR
C 3
C 2
C 1
OUT
POWER FAIL
C3
C2
C1
IN
SEG.0
SEG12
GRID 12
GRID 0
SEGMENT SIGNALS
GRID SIGNALS
IC6701 (μPC1490HA)
+5V
IR RECEIVER UNIT (VEK5396 or VEK4322)
IR
IC7503 (MN1280L)
REG 5V
RESET Ⓛ
X6001
Q6004
OSC
P7401
P7501
BUZZER
VCC
BACK UP 5V
FROM POWER
P40
P41
P43
P45
P46
P47
P00
P01
P21
P54
P20
P23
P22
EJECT
PAUSE
STOP
FF
REW
REC
PLAY
POWER SW
TIMER REC
CH DOWN
CH UP
PROG.
TRACKING (−)
CLOCK
TRACKING (+)
NEXT
ON (−)
PRESET
ON (+)
OFF (−)
OFF (+)
CLEAR
BAND/ AFC
OPERATION C.B.A. (VEP06726A)
3.9ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID10
GRID11
GRID12
C2001 · ① ③ ㉓
2.2Vp-p
H 3⁻
H 3⁺
H 2⁻
H 2⁺
H 1⁻
H 1⁺
DD CAPSTAN MOTOR
FG 2
FG 1
(90° PHASE DIFFERENCE)

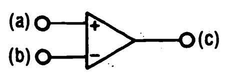
SYMBOL	TRUTH VALUE TABLE

INVERTER



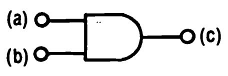
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



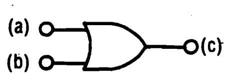
IN	(a) (b)	(a)>(b)	(a)<(b)
OUT	(c)	H	L

AND CIRCUIT



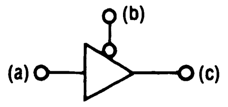
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

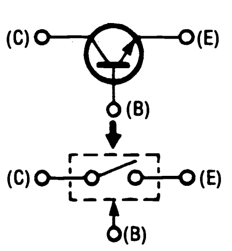
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

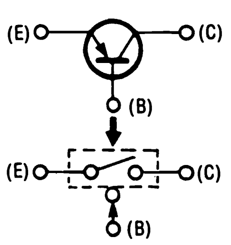
※ High Impedance

TR. SW (NPN TYPE)



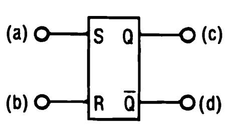
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

R-S TYPE FLIP-FLOP



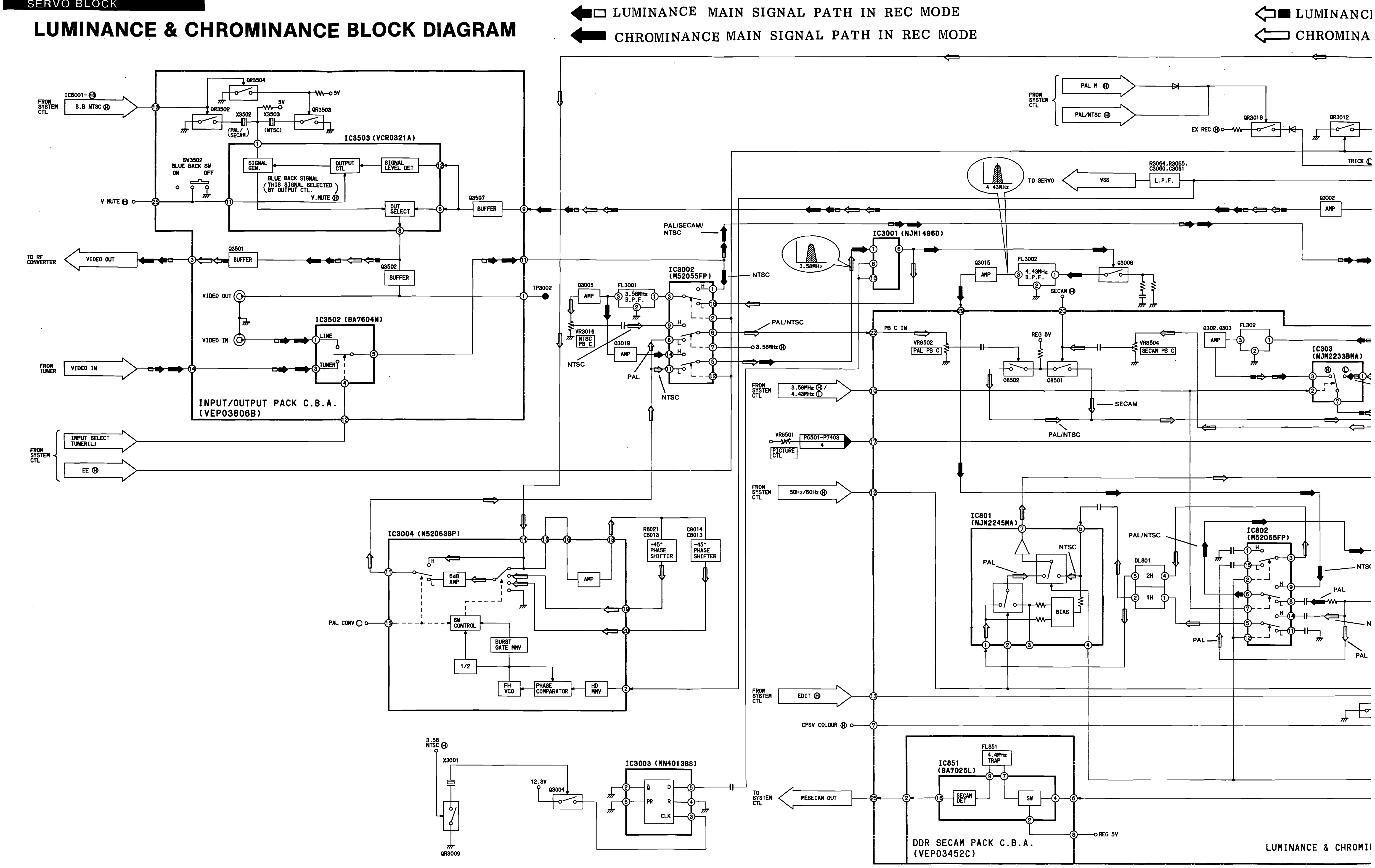
IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reversed.

LUMINANCE & CHROMINANCE BLOCK DIAGRAM

◀□ LUMINANCE MAIN SIGNAL PATH IN REC MODE

◀■ CHROMINANCE MAIN SIGNAL PATH IN REC MODE

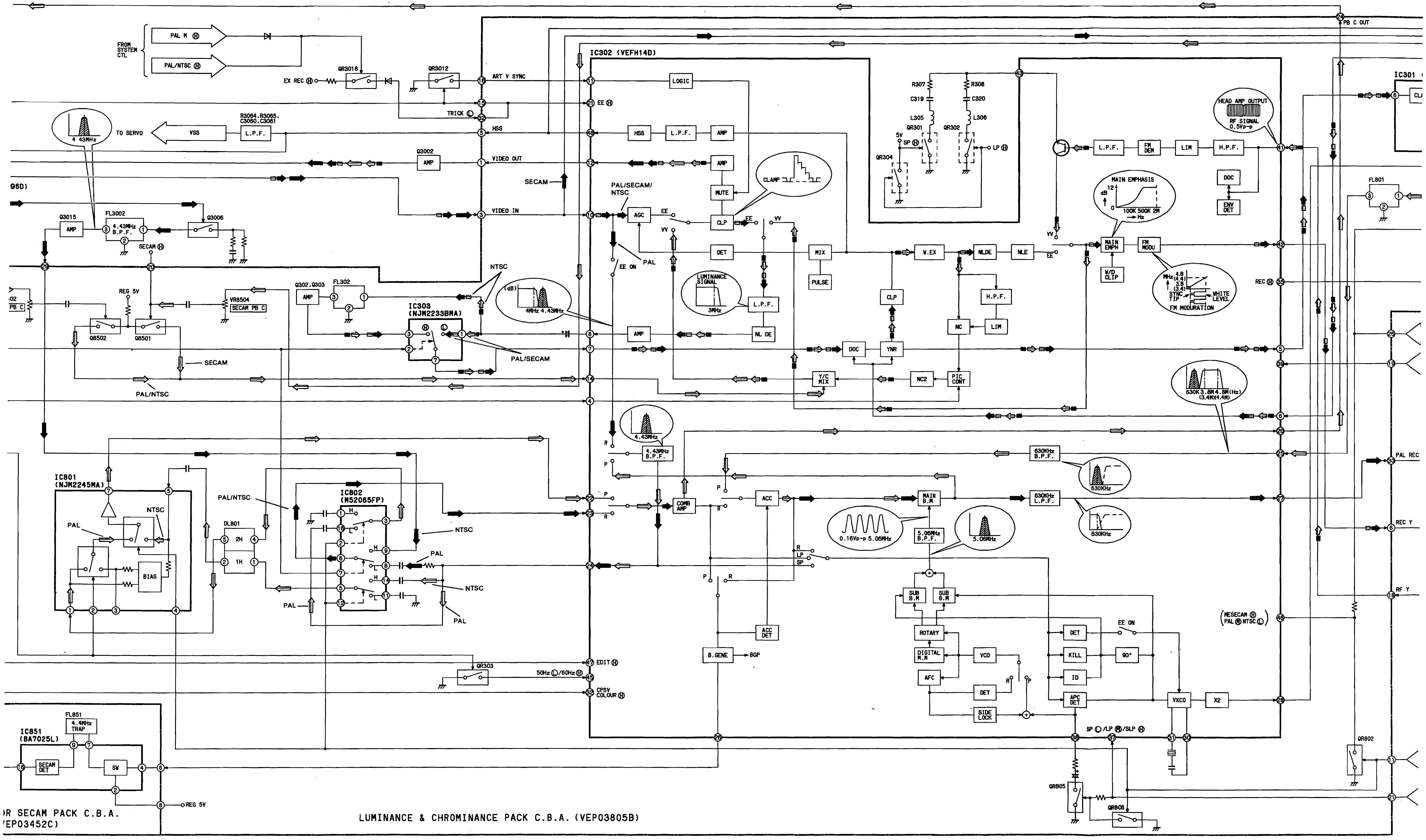

⇦■ LUMINANC
⇦ CHROMINA
FROM SYSTEM CTL
IC6001-⑩
B.B NTSC Ⓗ
QR3504
QR3502
X3502
X3503
5V
QR3503
(PAL/SECAM)
(NTSC)
IC3503 (VCR0321A)
SW3502
BLUE BACK SW
ON OFF
SIGNAL GEN.
OUTPUT CTL
SIGNAL LEVEL DET
BLUE BACK SIGNAL
(THIS SIGNAL SELECTED BY OUTPUT CTL.)
V.MUTE Ⓗ
OUT SELECT
V MUTE Ⓗ
Q3507
BUFFER
TO RF CONVERTER
VIDEO OUT
Q3501
BUFFER
Q3502
BUFFER
TP3002
VIDEO OUT
VIDEO IN
IC3502 (BA7604N)
LINE
TUNER
FROM TUNER
VIDEO IN
INPUT/OUTPUT PACK C.B.A.
(VEP03806B)
FROM SYSTEM CTL
INPUT SELECT TUNER(L)
EE Ⓗ
PAL/SECAM/NTSC
NTSC
Q3005
AMP
FL3001
3.58MHz B.P.F.
VR3016
NTSC PB C
Q3019
AMP
NTSC
PAL
NTSC
IC3002 (M52055FP)
PAL/NTSC
3.58MHz Ⓗ
3.58MHz
IC3001 (NJM1496D)
Q3015
AMP
FL3002
4.43MHz B.P.F.
SECAM Ⓗ
Q3006
4.43MHz
TO SERVO
VSS
L.P.F.
R3064.R3065.
C3060.C3061
FROM SYSTEM CTL
PAL M Ⓗ
PAL/NTSC Ⓗ
QR3018
QR3012
EX REC Ⓗ
TRICK Ⓛ
Q3002
AMP
PB C IN
VR8502
PAL PB C
REG 5V
VR8504
SECAM PB C
Q8502
Q8501
SECAM
PAL/NTSC
Q302.Q303
AMP
FL302
IC303 (NJM2233BMA)
FROM SYSTEM CTL
3.58MHz Ⓗ/4.43MHz Ⓛ
VR6501
P6501-P7403
PICTURE CTL
FROM SYSTEM CTL
50Hz/60Hz Ⓗ
IC801 (NJM2245MA)
NTSC
PAL
BIAS
PAL/NTSC
DL801
2H
1H
IC802 (M52065FP)
NTSC
PAL
PAL
PAL
IC3004 (M52063SP)
6dB AMP
AMP
SW CONTROL
BURST GATE MMV
1/2
FH VCO
PHASE COMPARATOR
HD MMV
PAL CONV Ⓛ
R8021 C8013
+45° PHASE SHIFTER
C8014 C8013
-45° PHASE SHIFTER
FROM SYSTEM CTL
EDIT Ⓗ
CPSV COLOUR Ⓗ
3.58 NTSC Ⓗ
X3001
QR3009
12.3V
Q3004
IC3003 (MN4013BS)
D
PR
R
CLK
TO SYSTEM CTL
MESECAM OUT
FL851
4.4MHz TRAP
IC851 (BA7025L)
SECAM DET
SW
REG 5V
DDR SECAM PACK C.B.A.
(VEP03452C)
LUMINANCE & CHROMI

IODE

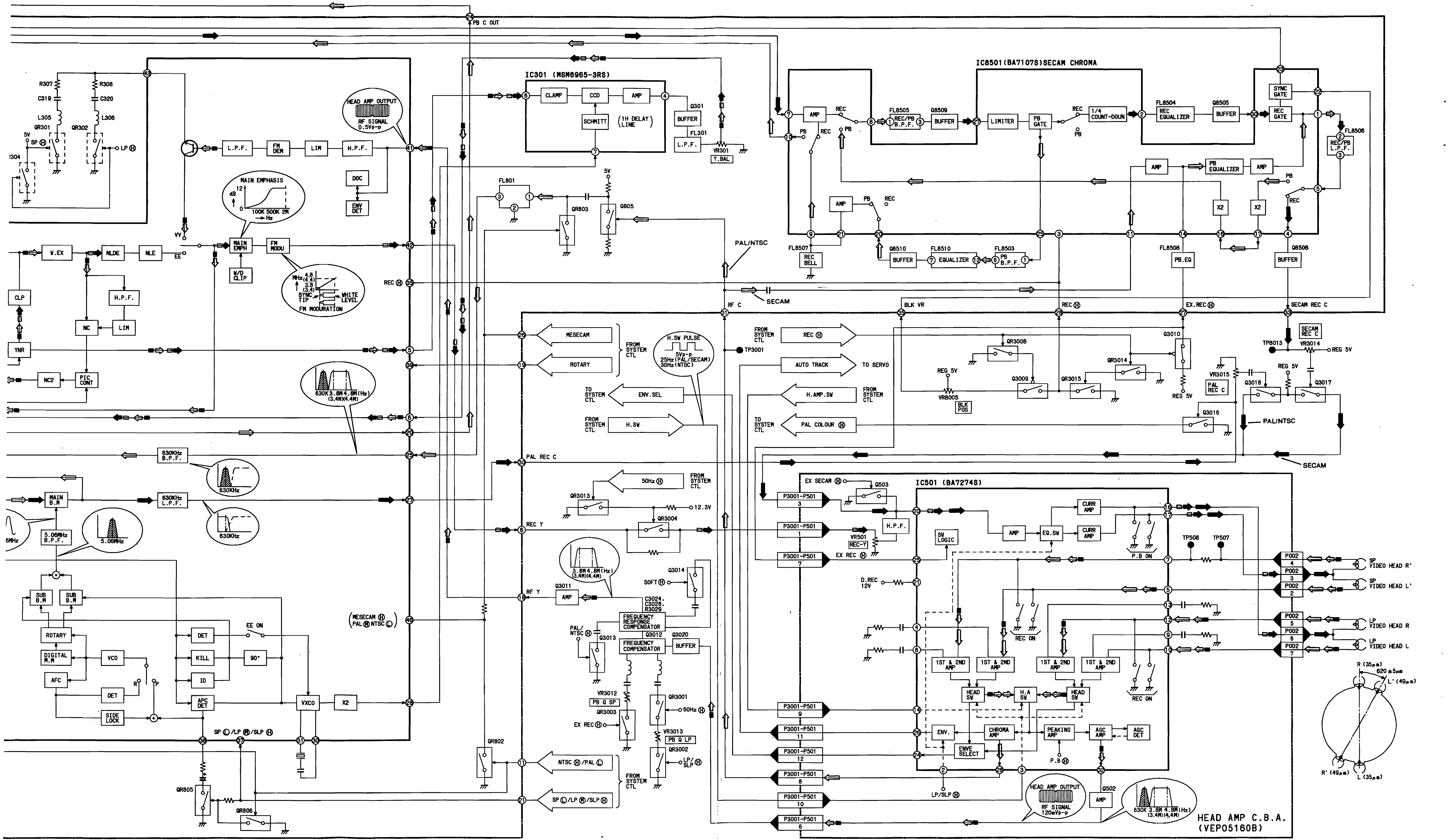
: MODE

⇦■ LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

⇦ CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

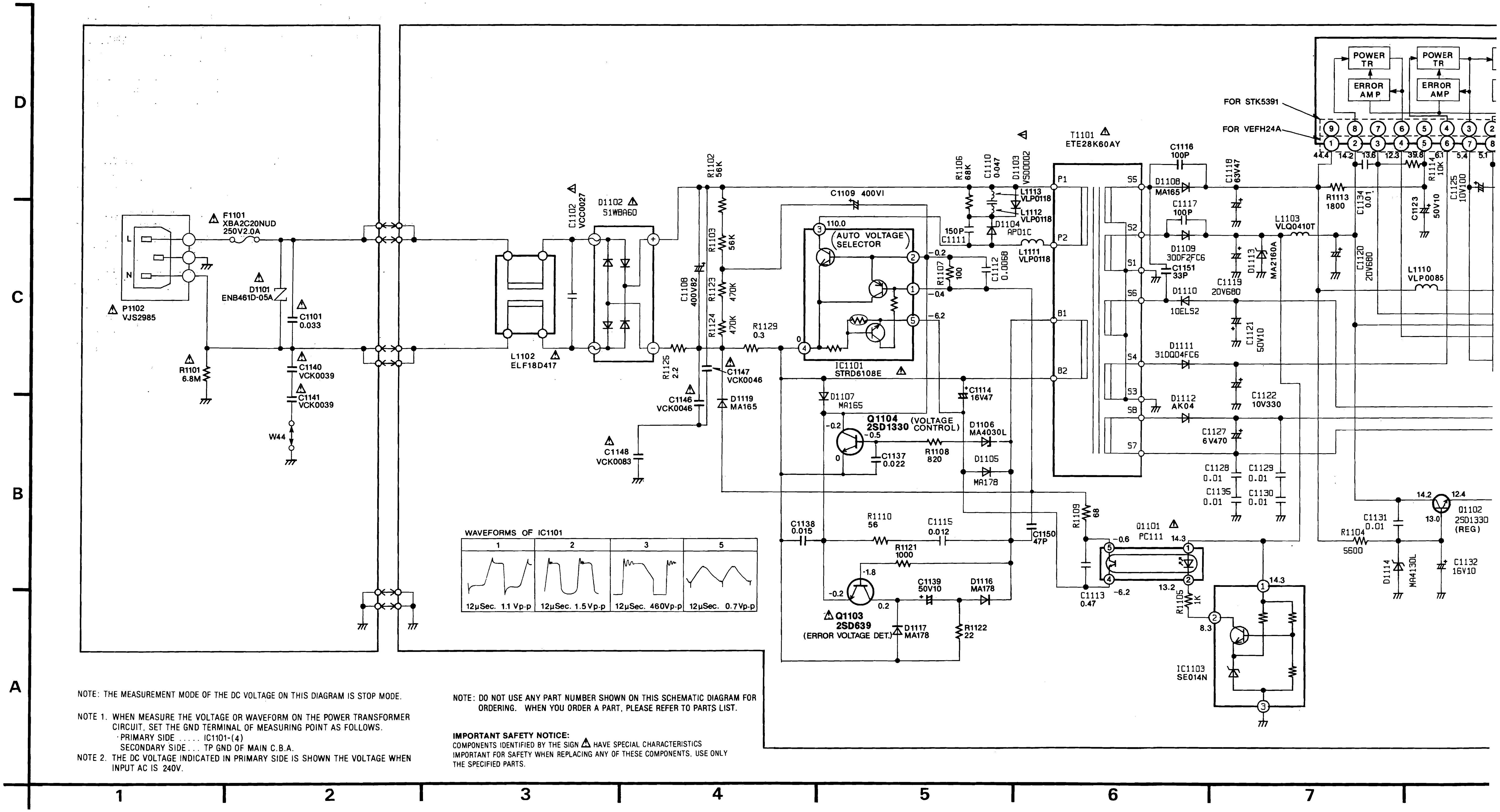


FROM SYSTEM CTL
PAL M Ⓗ
PAL/NTSC Ⓗ
EX REC Ⓗ
QR3018
QR3012
ART V SYNC
TRICK Ⓛ
R3064.R3065. C3060.C3061
L.P.F.
VSS
TO SERVO
4.43MHz
HSS
Q3002
AMP
VIDEO OUT
VIDEO IN
SECAM
96D)
Q3015
FL3002
4.43MHz B.P.F.
Q3006
SECAM Ⓗ
REG 5V
VR8504
SECAM PB C
PB C
Q8502
Q8501
PAL/NTSC
Q302.Q303
FL302
NTSC
IC303 (NJM2233BMA)
PAL/SECAM
(dB)
4MHz 4.43MHz
IC302 (VEFH14D)
LOGIC
EE Ⓗ
L.P.F.
AMP
MUTE
CLAMP
PAL/SECAM/ NTSC
AGC
EE
VV
CLP
DET
MIX
PULSE
EE ON
PAL
LUMINANCE SIGNAL
3MHz
NL DE
Y/C MIX
R307
R308
C319
C320
L305
L306
QR301
QR302
5V
SP Ⓗ
LP Ⓗ
QR304
W.EX
NLDE
NLE
DOC
YNR
H.P.F.
LIM
NC
NC2
PIC CONT
MAIN EMPHASIS
dB
100K 500K 2M Hz
MAIN EMPH
W/D CLIP
FM MODU
FM DEM
H.P.F.
ENV DET
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
MHz 4.8 (4.4) 3.8 (3.4)
SYNC TIP
WHITE LEVEL
FM MODURATION
REC Ⓗ
630K 3.8M 4.8M (Hz) (3.4M) (4.4M)
PB C OUT
IC301
FL801
4.43MHz B.P.F.
COMB AMP
ACC
MAIN B.M
630KHz B.P.F.
630KHz L.P.F.
630KHz
0.16Vp-p 5.06MHz
5.06MHz B.P.F.
5.06MHz
SUB B.M
ROTARY
DIGITAL M.M
VCO
AFC
DET
SIDE LOCK
KILL
ID
APC DET
90°
VXCO
X2
EE ON
ACC DET
B.GENE
BGP
(MESECAM Ⓗ PAL Ⓜ NTSC Ⓛ)
SP Ⓛ/LP Ⓜ/SLP Ⓗ
PAL REC
REC Y
RF Y
QR802
QR805
QR806
IC801 (NJM2245MA)
BIAS
DL801
2H
1H
IC802 (M52065FP)
EDIT Ⓗ
QR303
50Hz Ⓛ/60Hz Ⓗ
CPSV COLOUR Ⓗ
FL851
4.4MHz TRAP
IC851 (BA7025L)
SECAM DET
SW
REG 5V
R SECAM PACK C.B.A.
VEP03452C)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)


PB C OUT
IC301 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
BUFFER
Q301
FL301
L.P.F.
VR301
Y.BAL
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
L.P.F.
FM DEM
LIM
H.P.F.
DOC
ENV DET
MAIN EMPHASIS
100K 500K 2M Hz
MAIN EMPH
W/D CLIP
FM MODU
FM MODURATION
SYNC TIP
WHITE LEVEL
V.EX
NLDE
NLE
EE
CLP
H.P.F.
NC
LIM
YNR
NC2
PIC CONT
630K 3.8M 4.8M (Hz) (3.4M)(4.4M)
630KHz B.P.F.
630KHz L.P.F.
630KHz
MAIN B.M
5.06MHz B.P.F.
5.06MHz
SUB B.M
ROTARY
DIGITAL M.M
VCO
AFC
DET
SIDE LOCK
DET
KILL
ID
APC DET
EE ON
90°
VXCO
X2
SP Ⓛ/LP Ⓜ/SLP Ⓗ
QR805
QR806
QR802
R307
R308
C319
C320
L305
L306
QR301
QR302
SP Ⓗ
LP Ⓗ
REC Ⓗ
(MESECAM Ⓗ PAL Ⓜ NTSC Ⓛ)
FL801
QR803
Q805
5V
PAL/NTSC
SECAM
RF C
PAL REC C
REC Y
RF Y
MESECAM
ROTARY
FROM SYSTEM CTL
H.SW PULSE 5Vp-p 25Hz (PAL/SECAM) 30Hz (NTSC)
TO SYSTEM CTL
ENV.SEL
H.SW
50Hz Ⓗ
12.3V
QR3013
QR3004
Q3011
AMP
3.8M 4.8M (Hz) (3.4M)(4.4M)
C3024, C3028, R3029
FREQUENCY RESPONSE COMPENSATOR
FREQUENCY COMPENSATOR
Q3012
Q3020
BUFFER
Q3014
SOFT Ⓗ
PAL/NTSC Ⓗ
Q3013
VR3012
PB Q SP
QR3003
EX REC Ⓗ
QR3001
60Hz Ⓗ
VR3013
PB Q LP
QR3002
LP/SLP Ⓗ
NTSC Ⓗ/PAL Ⓛ
SP Ⓛ/LP Ⓜ/SLP Ⓗ
IC8501 (BA7107S) SECAM CHROMA
AMP
REC
PB
FL8505
REC/PB B.P.F.
Q8509
BUFFER
LIMITER
PB GATE
1/4 COUNT-DOWN
FL8504
REC EQUALIZER
Q8505
BUFFER
SYNC GATE
REC GATE
FL8506
REC/PB L.P.F.
AMP
PB EQUALIZER
AMP
X2
X2
FL8507
REC BELL
Q8510
BUFFER
FL8510
EQUALIZER
FL8503
PB B.P.F.
FL8508
PB.EQ
Q8506
BUFFER
BLK VR
REC Ⓗ
EX.REC Ⓗ
SECAM REC C
REC Ⓗ
TO SERVO
AUTO TRACK
TP3001
H.AMP.SW
PAL COLOUR Ⓗ
Q3010
QR3008
QR3014
REG 5V
VR8005
Q3009
QR3015
BLK POS
REG 5V
SECAM REC C
TP8013
VR3014
REG 5V
VR3015
PAL REC C
Q3018
Q3017
Q3016
PAL/NTSC
SECAM
EX SECAM Ⓗ
Q503
IC501 (BA7274S)
P3001-P501
H.P.F.
VR501
REC-Y
EX REC Ⓗ
SW LOGIC
AMP
EQ.SW
CURR AMP
CURR AMP
P.B ON
TP508
TP507
D.REC 12V
REC ON
1ST & 2ND AMP
HEAD SW
H.A SW
ENV.
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
ENVE SELECT
P.B Ⓗ
LP/SLP Ⓗ
Q502
AMP
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
630K 3.8M 4.8M (Hz) (3.4M)(4.4M)
P002
SP VIDEO HEAD R'
SP VIDEO HEAD L'
LP VIDEO HEAD R
LP VIDEO HEAD L
R (35μm)
620±5μm
L' (49μm)
R' (49μm)
L (35μm)

HEAD AMP C.B.A.
(VEP05160B)

POWER SCHEMATIC DIAGRAM



D
C
B
A
1
2
3
4
5
6
7
P1102 VJS2985
F1101 XBA2C20NUD 250V2.0A
D1101 ENB461D-05A
C1101 0.033
R1101 6.8M
C1140 VCK0039
C1141 VCK0039
W44
L1102 ELF18D417
C1102 VCC0027
D1102 51WBA60
C1108 400V82
R1102 56K
R1103 56K
R1123 470K
R1124 470K
R1125 2.2
R1129 0.3
C1146 VCK0046
C1147 VCK0046
C1148 VCK0083
D1119 MA165
C1109 400VI
AUTO VOLTAGE SELECTOR
IC1101 STRD6108E
R1106 68K
C1110 0.047
D1103 V5D0002
L1113 VLP0118
L1112 VLP0118
D1104 APD1C
C1111 150P
L1111 VLP0118
R1107 100
C1112 0.0068
C1114 16V47
D1107 MA165
Q1104 2SD1330 (VOLTAGE CONTROL)
D1106 MA4030L
R1108 820
C1137 0.022
D1105 MA178
C1138 0.015
R1110 56
C1115 0.012
R1121 1000
C1150 47P
Q1103 2SD639 (ERROR VOLTAGE DET.)
C1139 50V10
D1116 MA178
D1117 MA178
R1122 22
T1101 ETE28K60AY
P1
P2
B1
B2
S1
S2
S3
S4
S5
S6
S7
S8
C1116 100P
D1108 MA165
C1117 100P
D1109 300F2FC6
C1151 33P
D1110 10ELS2
D1111 310DD4FC6
D1112 AK04
C1118 63V47
C1119 20V680
D1113 MA2160A
C1121 50V10
C1122 10V330
C1127 6V470
C1128 0.01
C1129 0.01
C1135 0.01
C1130 0.01
L1103 VLQ0410T
L1110 VLP0085
R1113 1800
C1134 0.01
C1120 20V680
C1123 50V10
R1114 10K
C1125 10V100
R1109 68
Q1101 PC111
C1113 0.47
R1105 1K
IC1103 SE014N
R1104 5600
C1131 0.01
D1114 MA4130L
C1132 16V10
Q1102 2SD1330 (REG)
POWER TR
ERROR AMP
FOR STK5391
FOR VEFH24A
WAVEFORMS OF IC1101
12μSec. 1.1 Vp-p
12μSec. 1.5Vp-p
12μSec. 460Vp-p
12μSec. 0.7Vp-p

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

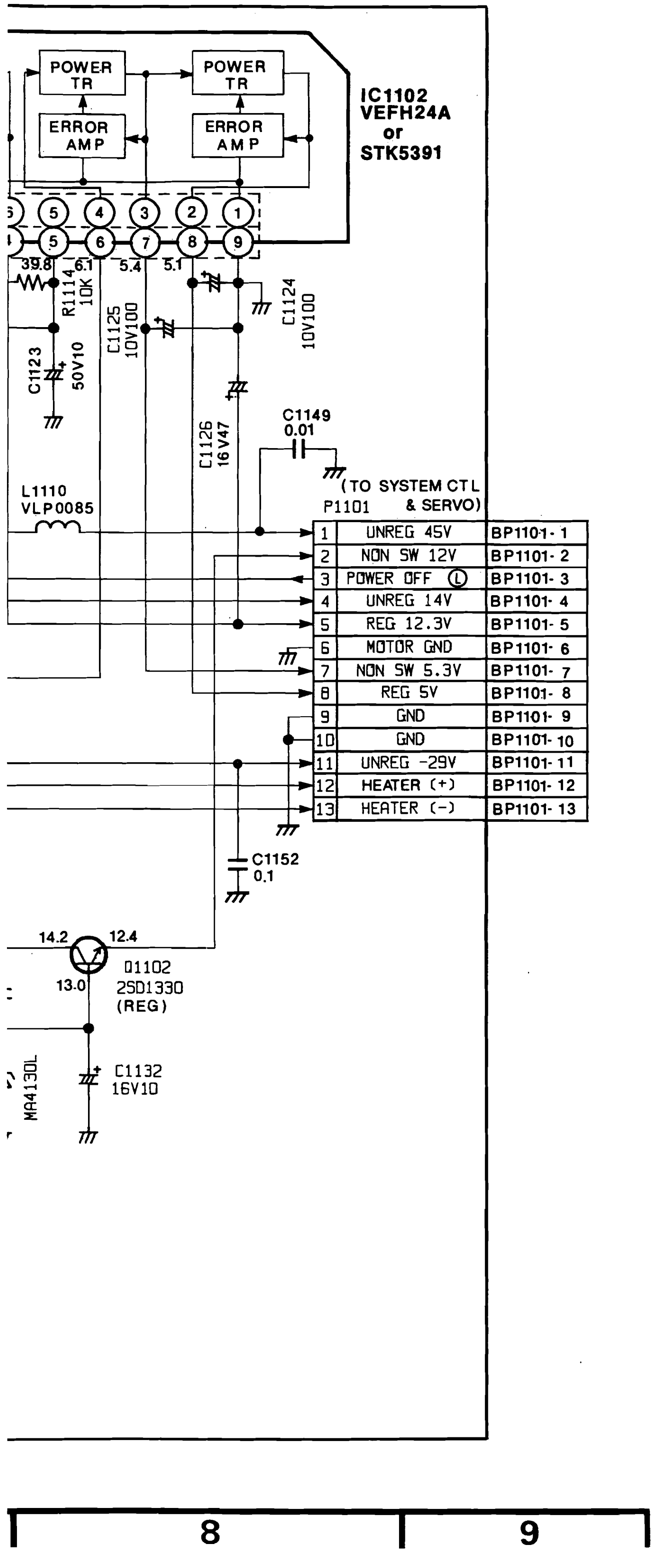
NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
- PRIMARY SIDE ..... IC1101-(4)
- SECONDARY SIDE ... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

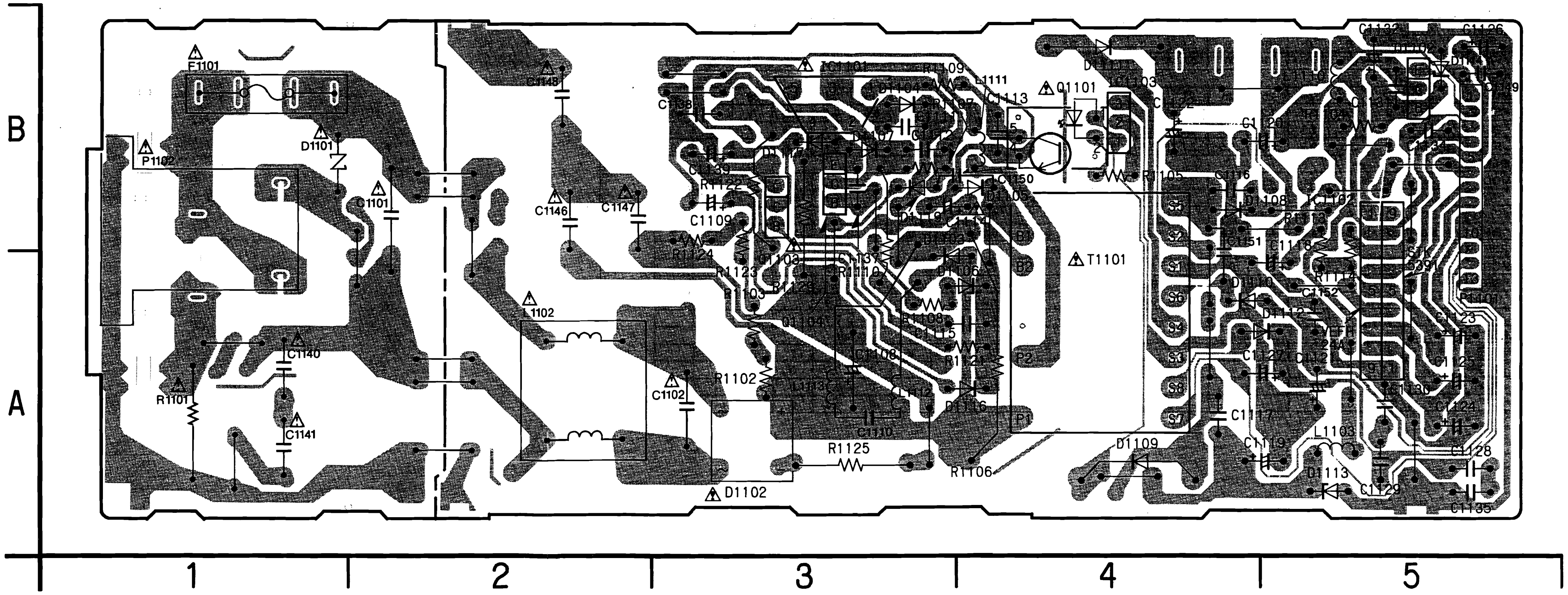
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

POWER C.B.A. (VEP01474A)


POWER TR
ERROR AMP
POWER TR
ERROR AMP
IC1102
VEFH24A
or
STK5391
5 4 3 2 1
5 6 7 8 9
39.8
6.1
5.4
5.1
R1114
10K
C1125
10V100
C1124
10V100
C1123
50V10
C1126
16V47
C1149
0.01
(TO SYSTEM CTL & SERVO)
P1101
L1110
VLP0085
1 UNREG 45V BP1101-1
2 NON SW 12V BP1101-2
3 POWER OFF Ⓛ BP1101-3
4 UNREG 14V BP1101-4
5 REG 12.3V BP1101-5
6 MOTOR GND BP1101-6
7 NON SW 5.3V BP1101-7
8 REG 5V BP1101-8
9 GND BP1101-9
10 GND BP1101-10
11 UNREG -29V BP1101-11
12 HEATER (+) BP1101-12
13 HEATER (−) BP1101-13
C1152
0.1
14.2
12.4
13.0
Q1102
2SD1330
(REG)
MA4130L
C1132
16V10
8
9

POWER C.B.A.	
Transistor	
Q1101	B-4
Q1102	B-5
Q1103	A-3
Q1104	A-3
Integrated Circuit	
IC1101	B-3
IC1102	B-5
IC1103	B-4
Connector	
P1101	A-5
P1102	B-1

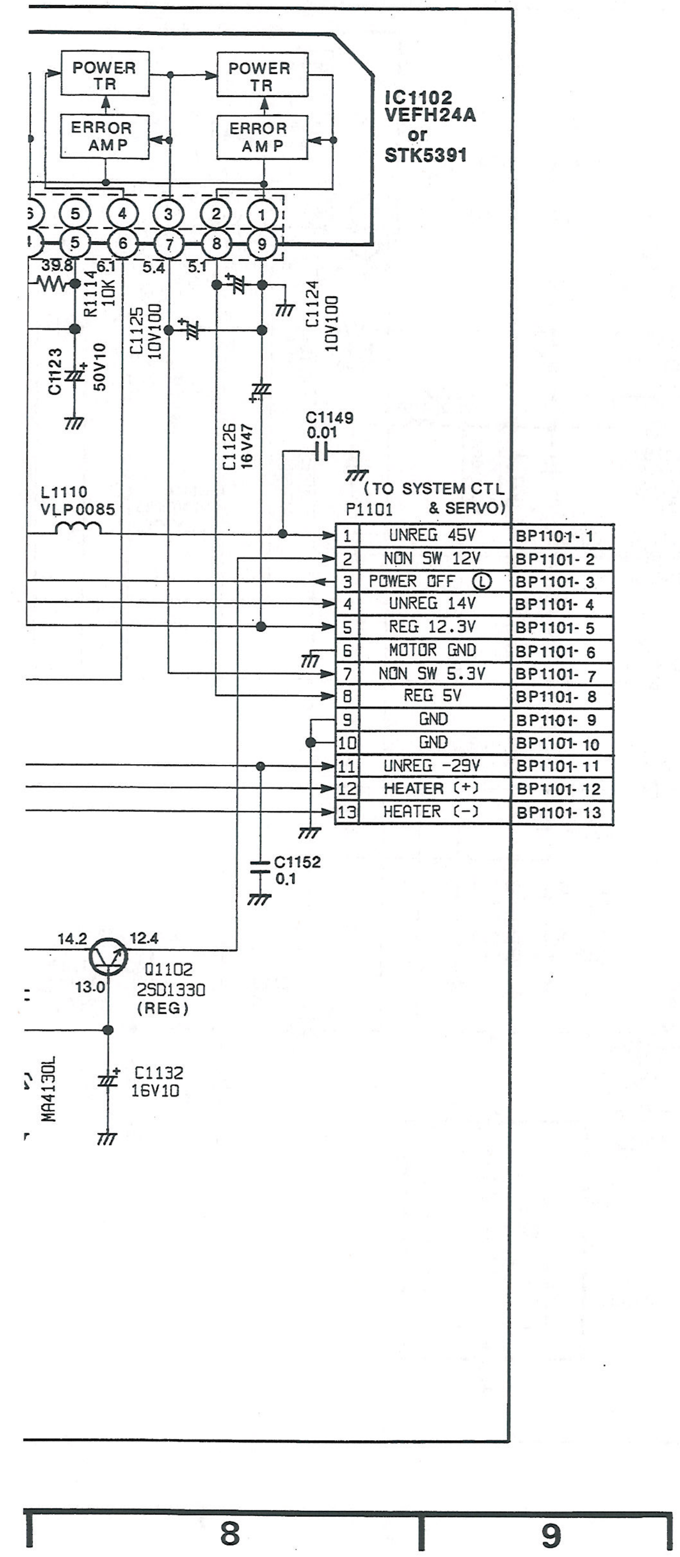
ADDRESS INFORMATION

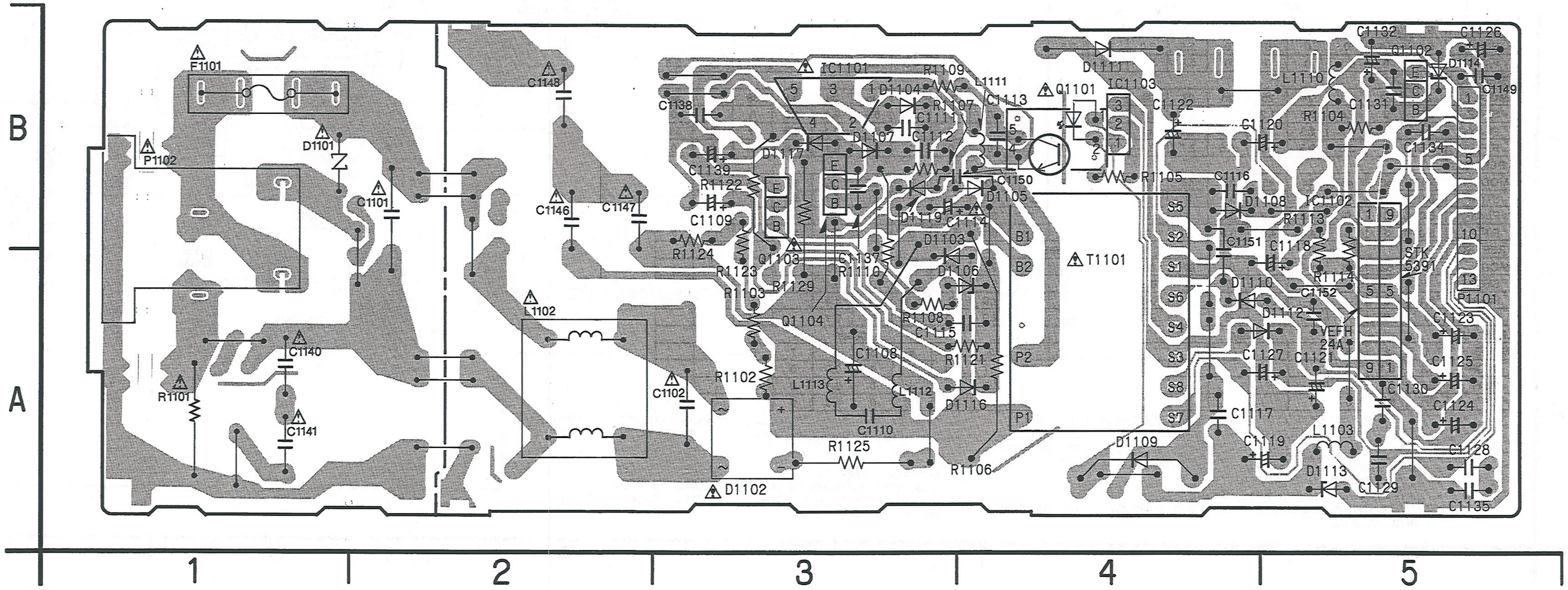

B
A
1
2
3
4
5
F1101
P1102
D1101
C1101
C1140
C1141
R1101
C1148
C1146
C1147
L1102
C1102
R1102
D1102
IC1101
Q1101
T1101
C1109
R1124
R1125
R1106
D1109
D1113
L1103
C1117
C1122
C1126
C1128
C1135
C1129

POWER C.B.A. (VEP01474A)

POWER C.B.A.	
Transistor	
Q1101	B-4
Q1102	B-5
Q1103	A-3
Q1104	A-3
Integrated Circuit	
IC1101	B-3
IC1102	B-5
IC1103	B-4
Connector	
P1101	A-5
P1102	B-1

ADDRESS INFORMATION


POWER TR
ERROR AMP
IC1102
VEFH24A
or
STK5391
39.8
6.1
5.4
5.1
R1114 10K
C1125 10V100
C1124 10V100
C1123 50V10
C1126 16V47
C1149 0.01
(TO SYSTEM CTL & SERVO)
P1101
L1110 VLP0085
1 UNREG 45V BP1101-1
2 NON SW 12V BP1101-2
3 POWER OFF Ⓛ BP1101-3
4 UNREG 14V BP1101-4
5 REG 12.3V BP1101-5
6 MOTOR GND BP1101-6
7 NON SW 5.3V BP1101-7
8 REG 5V BP1101-8
9 GND BP1101-9
10 GND BP1101-10
11 UNREG -29V BP1101-11
12 HEATER (+) BP1101-12
13 HEATER (-) BP1101-13
C1152 0.1
14.2
12.4
13.0
Q1102 2SD1330 (REG)
C1132 16V10
MA4130L
8
9


B
A
1
2
3
4
5
F1101
P1102
D1101
C1101
C1140
C1141
R1101
C1148
C1146
C1147
L1102
C1102
D1102
IC1101
R1109
L1111
D1104
R1107
C1113
C1111
C1112
D1107
D1117
C1138
C1139
R1122
C1109
R1124
R1123
R1129
R1103
Q1103
Q1104
C1137
R1110
C1150
D1105
D1119
C1114
D1103
D1106
R1108
C1115
R1121
C1108
L1113
L1112
D1116
C1110
R1102
R1125
R1106
Q1101
IC1103
T1101
R1105
D1111
C1122
C1120
C1116
D1108
C1151
D1110
D1112
C1127
C1117
C1119
D1109
L1103
D1113
C1129
C1132
C1126
Q1102
D1114
C1149
L1110
C1131
R1104
C1134
IC1102
R1113
C1118
R1114
C1152
VEFH 24A
STK 5391
C1121
C1130
P1101
C1123
C1125
C1124
C1128
C1135

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE/PAL)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.7	0	7.7	0	1.8	1.8	1.8	1.7	1.7	1.8	2.1	0	5.0	3.1	2.8	0.2	0	3.9	0.6	0
PLAY	2.3	0.1	2.3	0	1.9	1.9	1.8	1.8	1.9	1.9	0	0	5.0	3.2	2.8	2.5	4.2	3.9	0.7	0.1
F.F.	3.4	0.1	3.4	0	1.8	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.1	3.9	0.7	0.1
REF. NO.	IC2001																			
MODE	21	22	23	24																
STOP	0	2.5	7.7	13.6																
PLAY	0	4.1	0.5	9.7																
F.F.	0	4.2	3.6	13.6																
REF. NO.	IC2201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.6	13.6	0	0	0	2.5	4.3	0.6	0.8	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
PLAY	10.2	10.2	0	0.5	0	2.5	2.4	0.7	0.7	2.7	5.0	3.6	3.7	3.6	1.4	9.7	8.8	0		
F.F.	13.6	13.6	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.1	5.0	5.0	0	5.1	0	5.0	0
PLAY	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.0	5.0	5.0	0	5.0	0	5.0	0
F.F.	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.1	5.0	5.0	0	5.1	0	5.0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
PLAY	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
F.F.	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
REF. NO.	IC6002										IC6501									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0.7	2.9	5.2	0	0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
PLAY	0.7	2.9	5.2	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
F.F.	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
REF. NO.	IC6502																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.7	2.5	2.5	0	2.5	2.5	0.7	5.0												
PLAY	1.6	2.5	2.5	0	2.5	2.5	1.7	5.0												
F.F.	1.5	2.5	2.5	0	2.5	2.5	1.5	5.0												
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.1	0	5.0	0	0	0	2.5	3.0	3.0	0.1	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
PLAY	5.1	5.1	0	0	0	0	2.5	3.0	3.0	2.5	2.4	1.9	2.5	0.2	2.5	2.5	2.5	5.1	0	2.5
F.F.	5.1	0	5.1	0	0	0	2.5	3.0	3.0	2.6	4.3	1.5	2.5	4.0	2.5	2.5	2.5	5.1	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.2	2.9	4.0	2.1	5.1	5.0	0.1	0	0	0	5.1	0.1	4.8	0	0	0
PLAY	2.5	0	2.5	2.5	1.3	2.5	4.1	3.2	5.1	1.4	3.4	0	0	0	5.1	0.1	4.8	0	0	5.0
F.F.	2.5	0	2.5	2.5	1.5	1.5	3.7	3.4	3.0	5.0	0.1	0	0	0	5.1	0.1	4.8	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	5.0	2.1	0	4.6	3.9	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.4	0	5.1	0
PLAY	5.0	0	0	4.8	4.8	5.0	0	0	0	5.1	0	5.1	5.1	0	0	5.1	4.3	0	5.1	0
F.F.	5.0	0	0	4.6	4.8	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.3	0	5.1	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	—	—	5.1	0	0	0.3	5.1	5.0	5.1	2.0	5.1	2.0	0	0.1				
PLAY	5.1	0	—	—	5.1	0	0	0.3	5.1	5.0	5.1	2.0	0	5.1	0	4.4				
F.F.	0	0	—	—	5.1	0	0	0.3	5.1	5.1	5.1	2.0	5.1	2.0	0	0.1				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		
PLAY	5.1	5.1	0								4.9	1.7	5.1	0	0	0.1	0	5.1		
F.F.	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE/PAL)

REF. NO.	Q6003			Q6004			Q6005			Q6006			Q6207			Q6501		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	13.7	14.2	14.3	0	0	0.8	0	0	0.7	0	44.3	0	—	5.0	—	0.4	2.0	1.1
PLAY	9.7	14.2	10.3	0	0	0.8	0	0	0.7	0	44.8	0	—	5.0	—	0.5	1.9	1.1
F.F.	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.4	0	—	5.0	—	0.5	1.9	1.1
REF. NO.	Q6502			Q6506			Q6507			Q6508			Q6509			Q6510		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.8	13.6	0.7	12.2	12.2	11.5	12.2	0	12.2
PLAY	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.7	9.7	0.7	12.2	12.2	11.5	12.2	0	12.2
F.F.	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.7	13.6	0.4	12.2	12.2	11.5	12.2	0	12.2
REF. NO.	Q6511			Q6512														
MODE	E	C	B	E	C	B												
STOP	0.7	0	0.7	0.7	0	0.7												
PLAY	1.7	0.9	1.9	1.6	0.9	1.9												
F.F.	1.5	0.9	1.6	1.6	0.9	1.7												
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6008			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.5	0	5.0	5.0	0	0	2.4	0	0	0	5.0	5.0	5.0	0	0	4.3	0
PLAY	0	13.5	0	5.0	0.1	5.1	0	2.3	0	0	0	5.0	5.0	5.0	0	0	0.1	5.0
F.F.	0	13.5	0	5.0	5.0	0	0	2.4	0	0	0	5.0	5.0	5.0	0	0	4.3	0
REF. NO.	QR6013			QR6017			QR6018			QR6019			QR6020			QR6021		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
PLAY	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	0.6	0	5.1	5.0	5.1	4.8	0.1	0
F.F.	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
REF. NO.	QR6501			QR6502			QR6507			QR6508			QR6509			QR6511		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.8	0	0	4.8	5.1	0	5.0	0	0.1	5.0	5.0	0.7	4.7	0	12.2	0
PLAY	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.3	0	12.2	0
F.F.	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.4	0	12.2	0
REF. NO.	QR6512																	
MODE	E	C	B															
STOP	0	0.3	0															
PLAY	0	0	2.7															
F.F.	0	0.9	0															

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE/NTSC)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.7	0	7.7	0	1.9	1.8	1.8	1.8	1.8	1.8	2.1	0	5.0	3.2	2.8	0.2	0	3.9	0.6	0
PLAY	2.5	0.1	2.5	0	1.9	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.2	3.9	0.7	0.1
F.F.	3.5	0.1	3.6	0	1.8	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.1	3.9	0.7	0.1
REF. NO.	IC2001																			
MODE	21	22	23	24																
STOP	0	2.5	7.7	13.7																
PLAY	0	4.1	1.1	9.7																
F.F.	0	4.2	3.8	13.6																
REF. NO.	IC2201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.7	13.7	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.7	13.7	0		
PLAY	9.5	0.9	0.1	0.5	0	2.5	2.4	0.6	0.6	2.6	5.0	3.7	3.7	3.7	1.0	9.7	9.5	0.1		
F.F.	13.6	13.6	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.8	0	5.0	5.0	0	0	4.9	0	0
PLAY	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.8	0	5.0	5.0	0	0	4.9	0	0
F.F.	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.9	0	5.0	5.0	0	5.1	4.9	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	0	5.0	0	0	0	0	4.8	0	0	0	0	5.0								
PLAY	0	5.0	0	0	0	0	4.8	0.1	0	0	0	5.0								
F.F.	0	5.0	0	0	0	0	0	0	0	0	0	5.0								
REF. NO.	IC6002										IC6501									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
PLAY	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
F.F.	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	0	0	2.5	5.0		
REF. NO.	IC6502																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.7	2.5	2.5	0	2.5	2.5	5.0	5.0												
PLAY	1.7	2.5	2.5	0	0	2.5	1.6	5.0												
F.F.	1.5	2.5	2.5	0	2.5	2.5	1.5	5.0												
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.1	5.1	0	0	0	0	2.5	3.0	3.0	0.2	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
PLAY	5.1	5.1	0	0	0	0	2.5	3.0	3.0	0	2.4	1.8	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
F.F.	5.1	5.1	0	0	0	0	2.5	3.0	3.0	2.5	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.2	2.9	4.0	2.1	0	5.0	0.1	0	0	0	0	0.1	4.8	0	0	0
PLAY	2.5	0	2.5	2.5	1.1	2.4	4.0	2.0	5.1	1.2	2.8	0	0	0	0	0.1	4.8	0	0	1.7
F.F.	2.5	0	2.5	2.5	2.0	1.9	3.7	3.4	2.8	5.0	0.1	0	0	0	0	0.1	4.8	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	5.0	2.1	0	4.8	4.2	5.0	0	0	0	0	5.1	5.1	5.1	0	0	0	4.7	0	5.1	0
PLAY	5.0	0	0	4.6	4.3	5.0	0	0	0	5.1	0	5.1	5.1	0	5.1	0	4.7	0	5.1	0
F.F.	5.0	0	0	4.8	4.2	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.7	0	5.1	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	—	—	5.1	0	0	0.3	0	5.1	5.1	2.0	5.1	2.0	0	4.4				
PLAY	5.1	0	—	—	5.1	0	0	4.4	0	5.1	5.1	2.0	0	5.1	0	4.6				
F.F.	0	0	—	—	5.1	0	0	0.3	5.1	5.1	5.1	2.0	5.1	2.0	0	4.4				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		
PLAY	5.1	5.1	0								4.9	0	5.1	0	0	0.3	0	5.1		
F.F.	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		

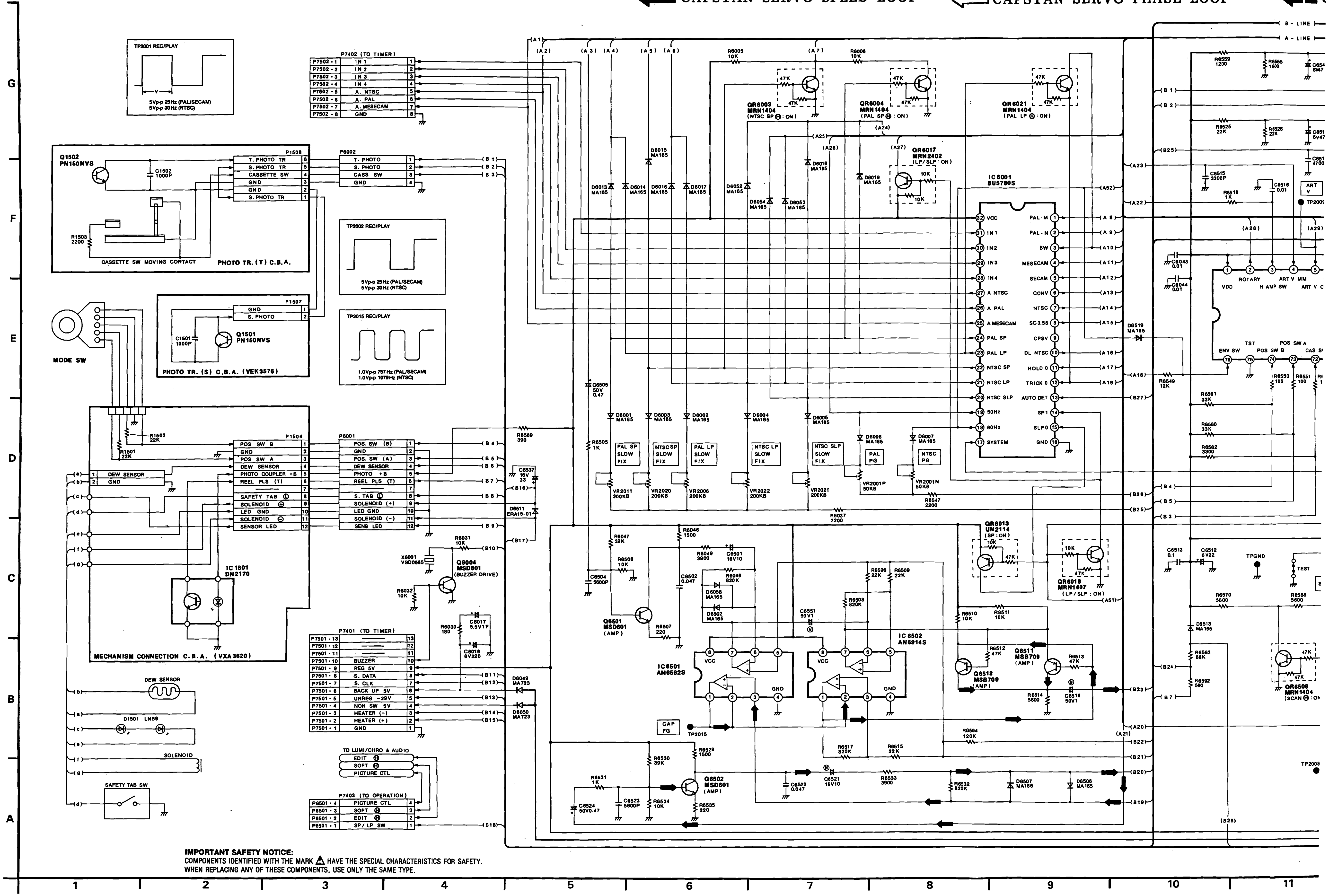
SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE/NTSC)

REF. NO.	Q6003			Q6004			Q6005			Q6006			Q6207			Q6501		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.3	0	—	5.0	—	0.5	1.9	1.1
PLAY	9.7	14.2	10.3	0	0	0.8	0	0	0.7	0	44.8	0.3	—	5.0	—	0.5	1.8	1.1
F.F.	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.8	0	—	5.0	—	0.5	1.8	1.1
REF. NO.	Q6502			Q6506			Q6507			Q6508			Q6509			Q6510		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.4	2.5	1.0	14.2	14.2	5.8	0	14.2	0	0.8	13.8	0.7	12.2	12.2	0.1	12.2	0	12.2
PLAY	0.4	2.4	1.0	14.2	14.2	5.7	0	14.2	0	0.8	9.7	0.7	12.2	11.9	11.8	11.9	0	11.9
F.F.	0.4	2.4	1.0	14.2	14.2	5.7	0	14.2	0	0.9	13.8	0.7	12.2	12.2	11.5	12.2	0	12.2
REF. NO.	Q6511			Q6512														
MODE	E	C	B	E	C	B												
STOP	0.5	0	0.7	0.7	0	0												
PLAY	1.6	0.9	1.8	1.6	0.9	1.9												
F.F.	1.5	0.9	1.6	1.5	0.9	1.8												
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6008			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.5	0	5.0	4.5	0	0	0	5.0	0	0	0	5.0	5.0	0	0	4.3	0
PLAY	0	13.5	0	5.0	0.1	5.1	0	0	5.0	0	0	0	5.0	5.0	0	0	0.1	5.1
F.F.	0	13.5	0	5.0	5.0	0	0	0	5.0	0	0	0	5.0	5.0	0	0	4.3	0
REF. NO.	QR6013			QR6017			QR6018			QR6019			QR6020			QR6021		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
PLAY	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	0.1	0	5.1	5.0	5.1	4.8	0.1	0
F.F.	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
REF. NO.	QR6501			QR6502			QR6507			QR6508			QR6509			QR6511		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.7	0	12.2	0
PLAY	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.4	4.7	0	11.9	0
F.F.	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	0.1	5.0	0.7	4.7	0	12.2	0
REF. NO.	QR6512																	
MODE	E	C	B															
STOP	0	0.1	0															
PLAY	0	0	2.6															
F.F.	0	1.0	0															

SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

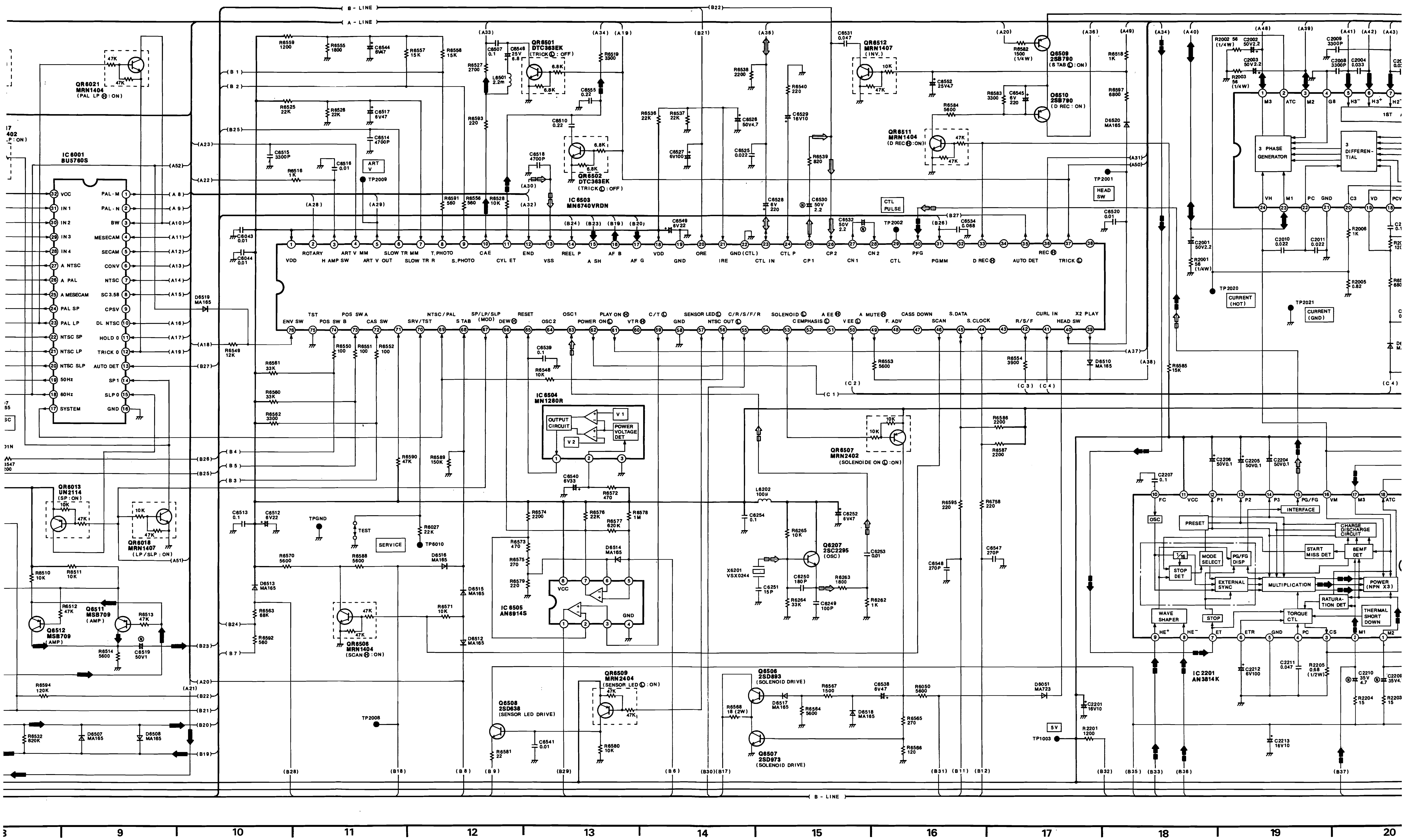
CAPSTAN SERVO SPEED LOOP

CAPSTAN SERVO PHASE LOOP

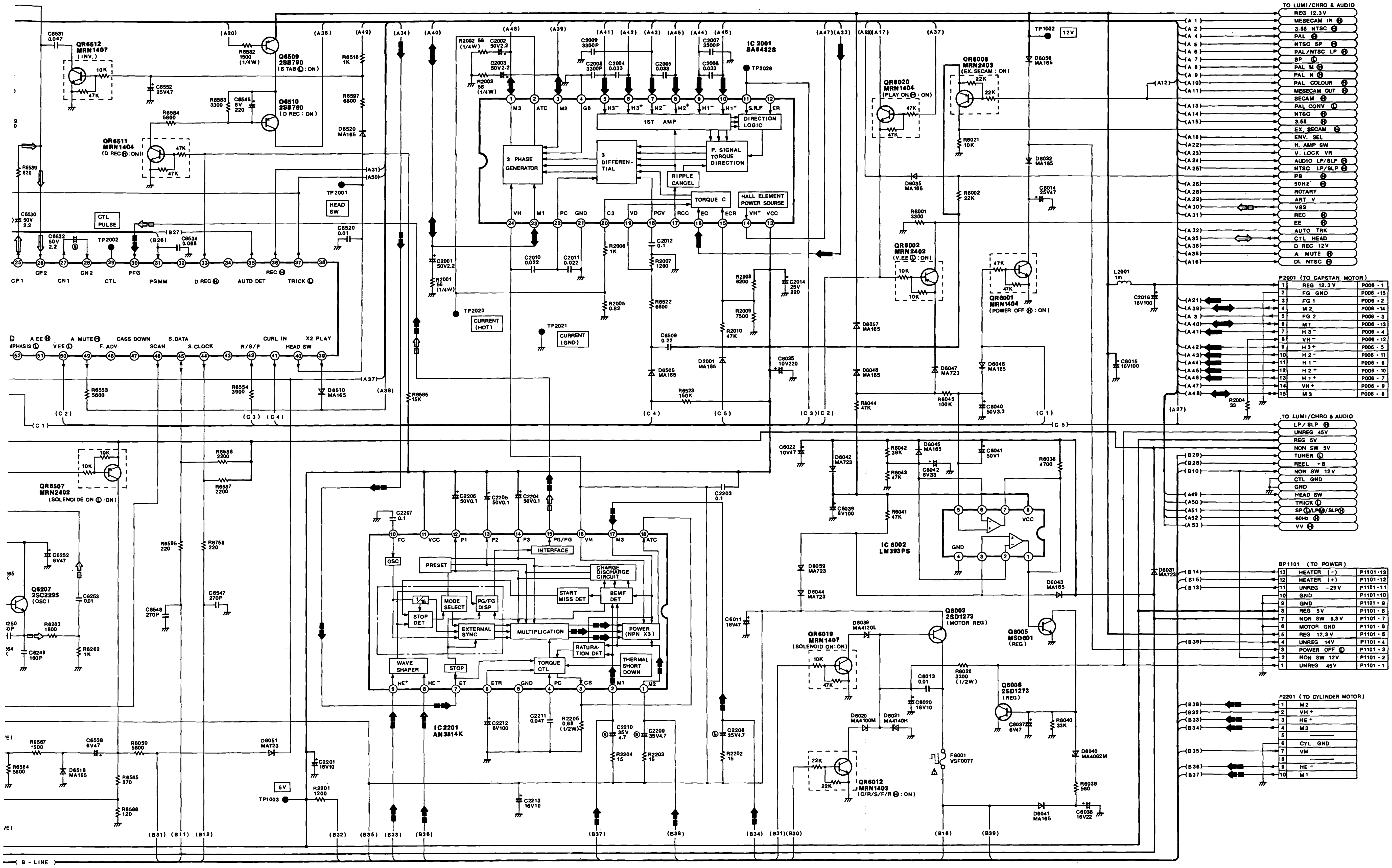

TP2001 REC/PLAY
5Vp-p 25Hz (PAL/SECAM)
5Vp-p 30Hz (NTSC)
P7402 (TO TIMER)
Q1502 PN150NVS
C1502 1000P
R1503 2200
CASSETTE SW MOVING CONTACT
PHOTO TR. (T) C.B.A.
P1508
T. PHOTO TR
S. PHOTO TR
CASSETTE SW
GND
P6002
T. PHOTO
S. PHOTO
CASS SW
TP2002 REC/PLAY
TP2015 REC/PLAY
1.0Vp-p 757Hz (PAL/SECAM)
1.0Vp-p 1079Hz (NTSC)
P1507
C1501 1000P
Q1501 PN150NVS
PHOTO TR. (S) C.B.A. (VEK3576)
MODE SW
R1502 22K
R1501 22K
P1504
P6001
POS. SW B
POS. SW A
DEW SENSOR
PHOTO COUPLER +B
REEL PLS (T)
SAFETY TAB
SOLENOID
LED GND
SENSOR LED
IC1501 DN2170
MECHANISM CONNECTION C.B.A. (VXA3620)
DEW SENSOR
D1501 LN59
SOLENOID
SAFETY TAB SW
P7401 (TO TIMER)
BUZZER
REG 5V
S. DATA
S. CLK
BACK UP 5V
UNREG -29V
NON SW 5V
HEATER (-)
HEATER (+)
TO LUMI/CHRO & AUDIO
EDIT
SOFT
PICTURE CTL
P7403 (TO OPERATION)
SP/ LP SW
X6001 VSQ0565
Q6004 MSD601 (BUZZER DRIVE)
D6049 MA723
D6050 MA723
D6511 ERA15-01
QR6003 MRN1404 (NTSC SP : ON)
QR6004 MRN1404 (PAL SP : ON)
QR6021 MRN1404 (PAL LP : ON)
QR6017 MRN2402 (LP/SLP : ON)
IC6001 BU5780S
VCC
IN 1
IN 2
IN 3
IN 4
A NTSC
A PAL
A MESECAM
PAL SP
PAL LP
NTSC SP
NTSC LP
NTSC SLP
50Hz
60Hz
SYSTEM
PAL-M
PAL-N
BW
MESECAM
SECAM
CONV
NTSC
SC3.58
CPSV
DL NTSC
HOLD 0
TRICK 0
AUTO DET
SP1
SLP0
GND
PAL SP SLOW FIX
NTSC SP SLOW FIX
PAL LP SLOW FIX
NTSC LP SLOW FIX
NTSC SLP SLOW FIX
PAL PG
NTSC PG
VR2011 200KB
VR2020 200KB
VR2006 200KB
VR2022 200KB
VR2021 200KB
VR2001P 50KB
VR2001N 50KB
QR6013 UN2114 (SP : ON)
QR6018 MRN1407 (LP/SLP : ON)
Q6501 MSD601 (AMP)
IC6501 AN6562S
IC6502 AN6914S
Q6511 MSB709 (AMP)
Q6512 MSB709 (AMP)
CAP FG
TP2015
Q6502 MSD601 (AMP)
D6519 MA165
D6513 MA165
QR6508 MRN1404 (SCAN : ON)
TPGND
TEST
ROTARY
H AMP SW
ENV SW
TST
POS SW B
POS SW A
CAS SW
VDD
B - LINE
A - LINE
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

⇦ CAPSTAN SERVO PHASE LOOP   ⬅■ CYLINDER SERVO SPEED LOOP   ⇦□ CYLINDER SERVO PHASE LOOP


B - LINE
A - LINE
IC 6001
BU7760S
QR6021
MRN1404
(PAL LP ⓟ : ON)
QR6013
UN2114
(SP : ON)
QR6018
MRN1407
(LP / SLP : ON)
Q6512
MSB709
(AMP)
Q6511
MSB709
(AMP)
QR6501
DTC363EK
(TRICK Ⓛ : OFF)
QR6502
DTC363EK
(TRICK Ⓛ : OFF)
IC 6503
MN6740VRDN
IC 6504
MN1280R
OUTPUT CIRCUIT
POWER VOLTAGE DET
IC 6505
AN6914S
QR6506
MRN1404
(SCAN ⓟ : ON)
Q6508
2SD638
(SENSOR LED DRIVE)
QR6509
MRN2404
(SENSOR LED Ⓛ : ON)
Q6506
2SD893
(SOLENOID DRIVE)
Q6507
2SD973
(SOLENOID DRIVE)
Q6207
2SC2295
(OSC)
X6201
VSX0244
QR6507
MRN2402
(SOLENOIDE ON Ⓛ : ON)
QR6512
MRN1407
(INV.)
QR6511
MRN1404
(D REC ⓟ : ON)
Q6509
2SB790
(S TAB Ⓛ : ON)
Q6510
2SB790
(D REC : ON)
3 PHASE GENERATOR
3 DIFFERENTIAL
IC 2201
AN3814K
INTERFACE
PRESET
CHARGE DISCHARGE CIRCUIT
START MISS DET
BEMF DET
MODE SELECT
PG/FG DISP
STOP DET
EXTERNAL SYNC
MULTIPLICATION
POWER (NPN X3)
SATURATION DET
WAVE SHAPER
STOP
TORQUE CTL
THERMAL SHORT DOWN
OSC
ART V
SERVICE
CTL PULSE
HEAD SW
CURRENT (HOT)
CURRENT (GND)
TP2009
TP2001
TP2002
TP2020
TP2021
TPGND
TP6010
TP2008
TP1003
5V
9
10
11
12
13
14
15
16
17
18
19
20

RVO PHASE LOOP

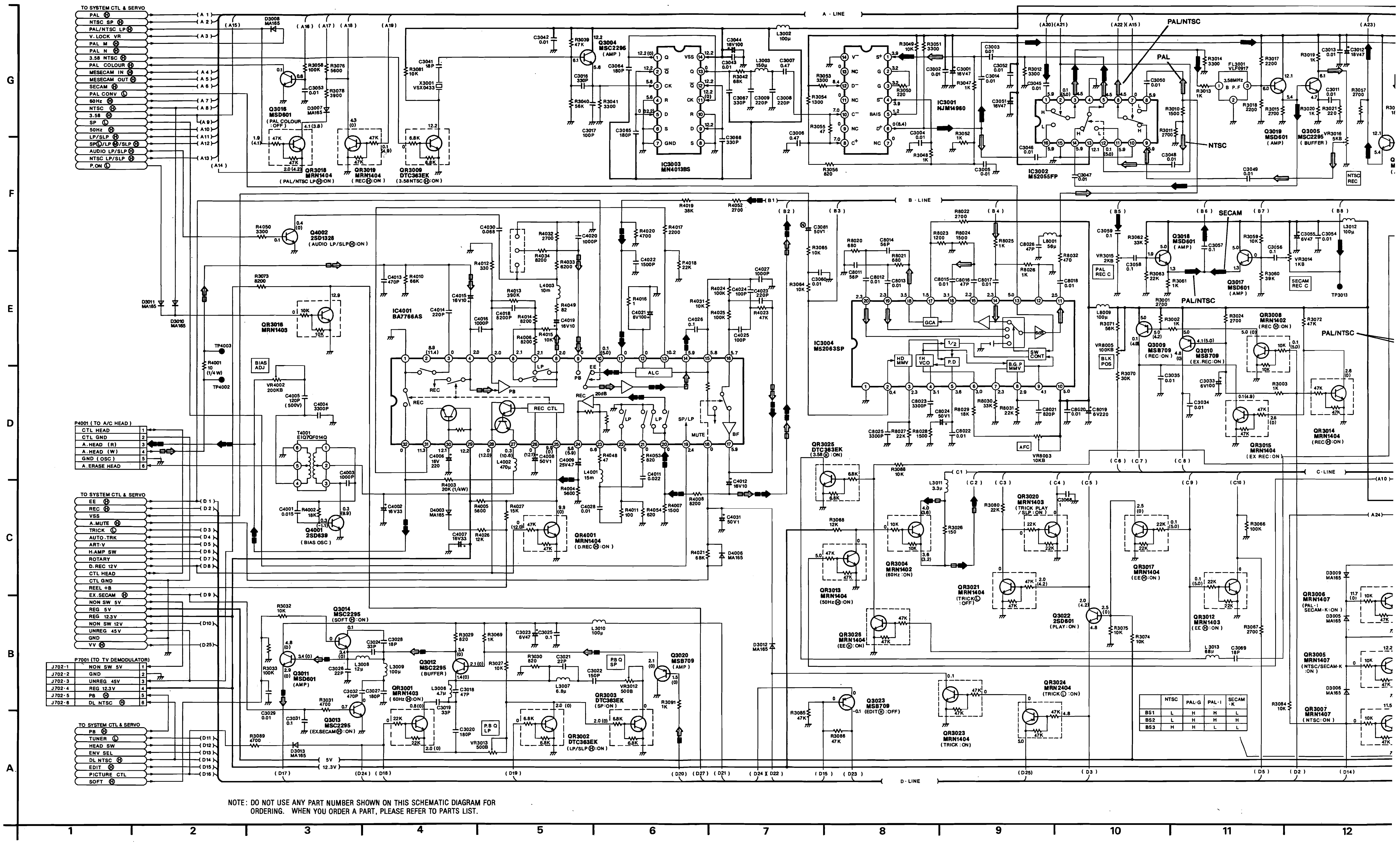

IC 2001
BA6432S
3 PHASE GENERATOR
3 DIFFERENTIAL
1ST AMP
DIRECTION LOGIC
P. SIGNAL TORQUE DIRECTION
RIPPLE CANCEL
TORQUE C
HALL ELEMENT POWER SOURSE
IC 2201
AN3814K
INTERFACE
PRESET
CHARGE DISCHARGE CIRCUIT
START MISS DET
BEMF DET
MODE SELECT
PG/FG DISP
STOP DET
EXTERNAL SYNC
MULTIPLICATION
POWER (NPN X3)
RATURATION DET
THERMAL SHORT DOWN
WAVE SHAPER
STOP
TORQUE CTL
OSC
IC 6002
LM393PS
QR6512 MRN1407 (INV.)
Q6509 2SB790 (STAB Ⓛ : ON)
Q6510 2SB790 (D REC : ON)
QR6511 MRN1404 (D REC Ⓗ : ON)
QR6507 MRN2402 (SOLENOIDE ON Ⓛ : ON)
Q6207 2SC2295 (OSC)
QR6020 MRN1404 (PLAY ON Ⓗ : ON)
QR6008 MRN2403 (EX. SECAM : ON)
QR6002 MRN2402 (V.EE Ⓛ : ON)
QR6001 MRN1404 (POWER OFF Ⓗ : ON)
Q6003 2SD1273 (MOTOR REG)
QR6019 MRN1407 (SOLENOID ON : ON)
Q6005 MSD601 (REG)
Q6006 2SD1273 (REG)
QR6012 MRN1403 (C/R/S/F/R Ⓗ : ON)
F6001 VSF0077
TP1002 12V
TP2001 HEAD SW
TP2002
CTL PULSE
TP2020 CURRENT (HOT)
TP2021 CURRENT (GND)
TP2026
TP1003 5V
CP1 CP2 CN1 CN2 CTL PFG PGMM D REC Ⓗ AUTO DET REC Ⓗ TRICK Ⓛ
D A EE Ⓗ A MUTE Ⓗ CASS DOWN S.DATA CURL IN X2 PLAY
PHASIS Ⓛ V̄EE Ⓛ F. ADV SCAN S.CLOCK R/S/F HEAD SW
TO LUMI/CHRO & AUDIO
REG 12.3V
MESECAM IN Ⓗ
3.58 NTSC Ⓗ
PAL Ⓗ
NTSC SP Ⓗ
PAL/NTSC LP Ⓗ
SP Ⓛ
PAL M Ⓗ
PAL N Ⓗ
PAL COLOUR Ⓗ
MESECAM OUT Ⓗ
SECAM Ⓗ
PAL CONV Ⓛ
NTSC Ⓗ
3.58 Ⓗ
EX. SECAM Ⓗ
ENV. SEL
H. AMP SW
V. LOCK VR
AUDIO LP/SLP Ⓗ
NTSC LP/SLP Ⓗ
PB Ⓗ
50Hz Ⓗ
ROTARY
ART V
VSS
REC Ⓗ
EE Ⓗ
AUTO TRK
CTL HEAD
D REC 12V
A MUTE Ⓗ
DL NTSC Ⓗ
P2001 (TO CAPSTAN MOTOR)
1 REG 12.3V P006-1
2 FG GND P006-15
3 FG 1 P006-2
4 M 2 P006-14
5 FG 2 P006-3
6 M 1 P006-13
7 H 3⁻ P006-4
8 VH⁻ P006-12
9 H 3⁺ P006-5
10 H 2⁻ P006-11
11 H 1⁻ P006-6
12 H 2⁺ P006-10
13 H 1⁺ P006-7
14 VH+ P006-9
15 M 3 P006-8
TO LUMI/CHRO & AUDIO
LP/SLP Ⓗ
UNREG 45V
REG 5V
NON SW 5V
TUNER Ⓛ
REEL +B
NON SW 12V
CTL GND
GND
HEAD SW
TRICK Ⓛ
SP Ⓛ/LP Ⓗ/SLP Ⓗ
60Hz Ⓗ
VV Ⓗ
BP1101 (TO POWER)
13 HEATER (-) P1101-13
12 HEATER (+) P1101-12
11 UNREG -29V P1101-11
10 GND P1101-10
9 GND P1101-9
8 REG 5V P1101-8
7 NON SW 5.3V P1101-7
6 MOTOR GND P1101-6
5 REG 12.3V P1101-5
4 UNREG 14V P1101-4
3 POWER OFF Ⓛ P1101-3
2 NON SW 12V P1101-2
1 UNREG 45V P1101-1
P2201 (TO CYLINDER MOTOR)
1 M2
2 VH+
3 HE+
4 M3
5
6 CYL. GND
7 VM
8
9 HE⁻
10 M1
B - LINE

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

LUMINANCE, CHROMINANCE & AUDIO SCHEMATIC DIAGRAM

◀□ LUMINANCE MAIN SIGNAL PATH IN REC MODE
◀■ CHROMINANCE MAIN SIGNAL PATH IN REC MODE
◀■ AUDIO MAIN SIGNAL PATH IN REC MODE

◁■ LUMINANCE MAIN SIGNA
◁ CHROMINANCE MAIN SIG
◁□ AUDIO MAIN SIGNAL PAT


TO SYSTEM CTL & SERVO
A-LINE
B-LINE
C-LINE
D-LINE
IC3003 MN4013BS
IC3001 NJM14960
IC3002 M52055FP
IC4001 BA7766AS
IC3004 M52063SP
Q3004 MSC2295 (AMP)
Q3016 MSD601
QR3018 MRN1404 (PAL/NTSC LP Ⓗ:ON)
QR3019 MRN1404 (REC Ⓗ:ON)
QR3009 DTC363EK (3.58NTSC Ⓗ:ON)
Q4002 2SD1328 (AUDIO LP/SLP Ⓗ:ON)
Q4001 2SD639 (BIAS OSC)
QR4001 MRN1404 (D.REC Ⓗ:ON)
Q3018 MSD601 (AMP)
Q3017 MSD601 (AMP)
Q3009 MSB709 (REC:ON)
Q3010 MSB709 (EX.REC:ON)
QR3008 MRN1402 (REC Ⓗ:ON)
QR3014 MRN1404 (REC Ⓗ:ON)
QR3015 MRN1404 (EX REC:ON)
Q3019 MSD601 (AMP)
Q3005 MSC2295 (BUFFER)
QR3025 DTC363EK (3.58 Ⓗ:ON)
QR3020 MRN1403 (TRICK PLAY / SLP:ON)
QR3004 MRN1402 (60Hz:ON)
QR3013 MRN1404 (50Hz Ⓗ:ON)
QR3026 MRN1404 (EE Ⓗ:ON)
QR3021 MRN1404 (TRICK Ⓛ:OFF)
Q3022 2SD601 (PLAY:ON)
QR3017 MRN1404 (EE Ⓗ:ON)
QR3012 MRN1403 (EE Ⓗ:ON)
QR3006 MRN1407 (PAL-I SECAM-K:ON)
QR3005 MRN1407 (NTSC/SECAM-K:ON)
QR3007 MRN1407 (NTSC:ON)
Q3014 MSC2295 (SOFT Ⓗ:ON)
Q3011 MSD601 (AMP)
Q3013 MSC2295 (EX.SECAM Ⓗ:ON)
QR3001 MRN1403 (60Hz Ⓗ:ON)
Q3012 MSC2295 (BUFFER)
QR3002 DTC363EK (LP/SLP Ⓗ:ON)
QR3003 DTC363EK (SP:ON)
Q3020 MSB709 (AMP)
Q3023 MSB709 (EDIT Ⓗ:OFF)
QR3023 MRN1404 (TRICK:ON)
QR3024 MRN2404 (TRICK Ⓛ:ON)
P4001 (TO A/C HEAD)
CTL HEAD
CTL GND
A.HEAD (R)
A.HEAD (W)
GND (OSC)
A.ERASE HEAD
P7001 (TO TV DEMODULATOR)
PAL/NTSC
PAL
SECAM
NTSC
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

	NTSC	PAL·G	PAL·I	SECAM ·K
BS1	L	H	H	L
BS2	L	H	H	H
BS3	H	H	L	L

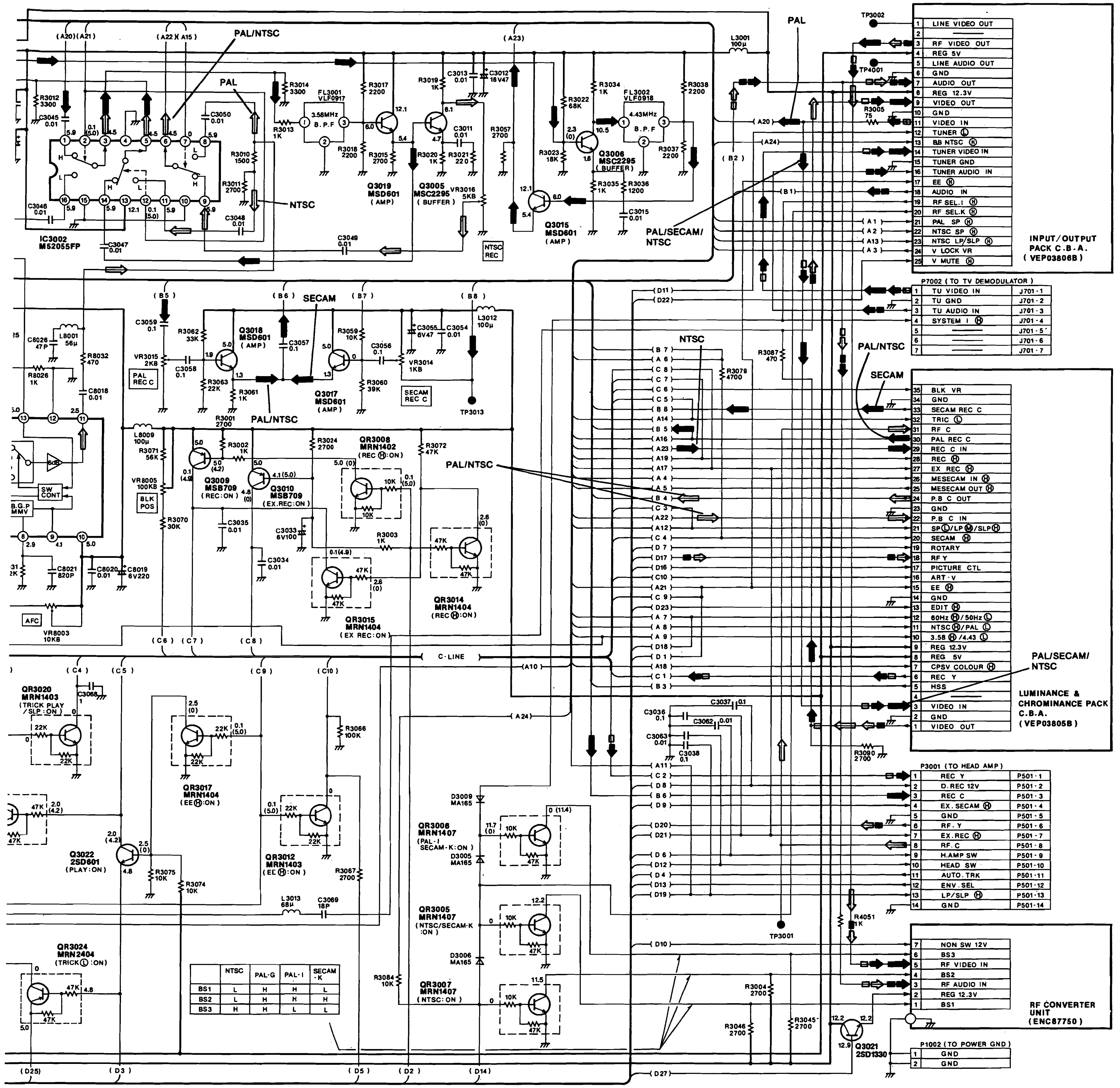
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

EC MODE ⇦■ LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

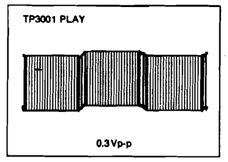
REC MODE ⇦ CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

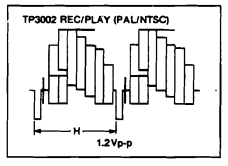
)DE ⇦□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

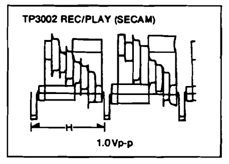
LUMINANCE & CHROMINANCE PACK C.B.A. (VEI

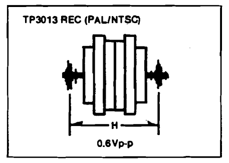

PAL/NTSC
PAL
NTSC
SECAM
PAL/SECAM/NTSC
IC3002 M52055FP
Q3019 MSD601 (AMP)
Q3005 MSC2295 (BUFFER)
Q3006 MSC2295 (BUFFER)
Q3015 MSD601 (AMP)
Q3018 MSD601 (AMP)
Q3017 MSD601 (AMP)
Q3009 MSB709 (REC:ON)
Q3010 MSB709 (EX.REC:ON)
QR3008 MRN1402 (REC Ⓗ:ON)
QR3014 MRN1404 (REC Ⓗ:ON)
QR3015 MRN1404 (EX REC:ON)
QR3020 MRN1403 (TRICK PLAY / SLP:ON)
QR3017 MRN1404 (EE Ⓗ:ON)
QR3012 MRN1403 (EE Ⓗ:ON)
Q3022 2SD601 (PLAY:ON)
QR3024 MRN2404 (TRICK Ⓛ:ON)
QR3006 MRN1407 (PAL-I SECAM-K:ON)
QR3005 MRN1407 (NTSC/SECAM-K:ON)
QR3007 MRN1407 (NTSC:ON)
Q3021 2SD1330
FL3001 VLF0917 3.58MHz B.P.F
FL3002 VLF0918 4.43MHz B.P.F
TP3001
TP3002
TP3013
TP4001
C-LINE
INPUT/OUTPUT PACK C.B.A. (VEP03806B)
1 LINE VIDEO OUT
2 ———
3 RF VIDEO OUT
4 REG 5V
5 LINE AUDIO OUT
6 GND
7 AUDIO OUT
8 REG 12.3V
9 VIDEO OUT
10 GND
11 VIDEO IN
12 TUNER Ⓛ
13 BB NTSC Ⓗ
14 TUNER VIDEO IN
15 TUNER GND
16 TUNER AUDIO IN
17 EE Ⓗ
18 AUDIO IN
19 RF SEL.I Ⓗ
20 RF SEL.K Ⓗ
21 PAL SP Ⓗ
22 NTSC SP Ⓗ
23 NTSC LP/SLP Ⓗ
24 V LOCK VR
25 V MUTE Ⓗ
P7002 (TO TV DEMODULATOR)
1 TU VIDEO IN J701-1
2 TU GND J701-2
3 TU AUDIO IN J701-3
4 SYSTEM I Ⓗ J701-4
5 ——— J701-5
6 ——— J701-6
7 ——— J701-7
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)
35 BLK VR
34 GND
33 SECAM REC C
32 TRIC Ⓛ
31 RF C
30 PAL REC C
29 REC C IN
28 REC Ⓗ
27 EX REC Ⓗ
26 MESECAM IN Ⓗ
25 MESECAM OUT Ⓗ
24 P.B C OUT
23 GND
22 P.B C IN
21 SPⓁ/LPⓂ/SLPⒽ
20 SECAM Ⓗ
19 ROTARY
18 RF Y
17 PICTURE CTL
16 ART-V
15 EE Ⓗ
14 GND
13 EDIT Ⓗ
12 60Hz Ⓗ / 50Hz Ⓛ
11 NTSC Ⓗ / PAL Ⓛ
10 3.58 Ⓗ / 4.43 Ⓛ
9 REG 12.3V
8 REG 5V
7 CPSV COLOUR Ⓗ
6 REC Y
5 HSS
4 ———
3 VIDEO IN
2 GND
1 VIDEO OUT
P3001 (TO HEAD AMP)
1 REC Y P501-1
2 D.REC 12V P501-2
3 REC C P501-3
4 EX.SECAM Ⓗ P501-4
5 GND P501-5
6 RF.Y P501-6
7 EX.REC Ⓗ P501-7
8 RF.C P501-8
9 H.AMP SW P501-9
10 HEAD SW P501-10
11 AUTO.TRK P501-11
12 ENV.SEL P501-12
13 LP/SLP Ⓗ P501-13
14 GND P501-14
RF CONVERTER UNIT (ENC87750)
7 NON SW 12V
6 BS3
5 RF VIDEO IN
4 BS2
3 RF AUDIO IN
2 REG 12.3V
1 BS1
P1002 (TO POWER GND)
1 GND
2 GND
10
11
12
13
14
15
16

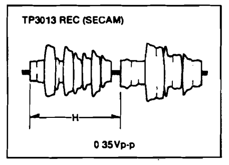
	NTSC	PAL-G	PAL-I	SECAM-K
BS1	L	H	H	L
BS2	L	H	H	H
BS3	H	H	L	L


TP3001 PLAY


TP3002 REC/PLAY (PAL/NTSC)

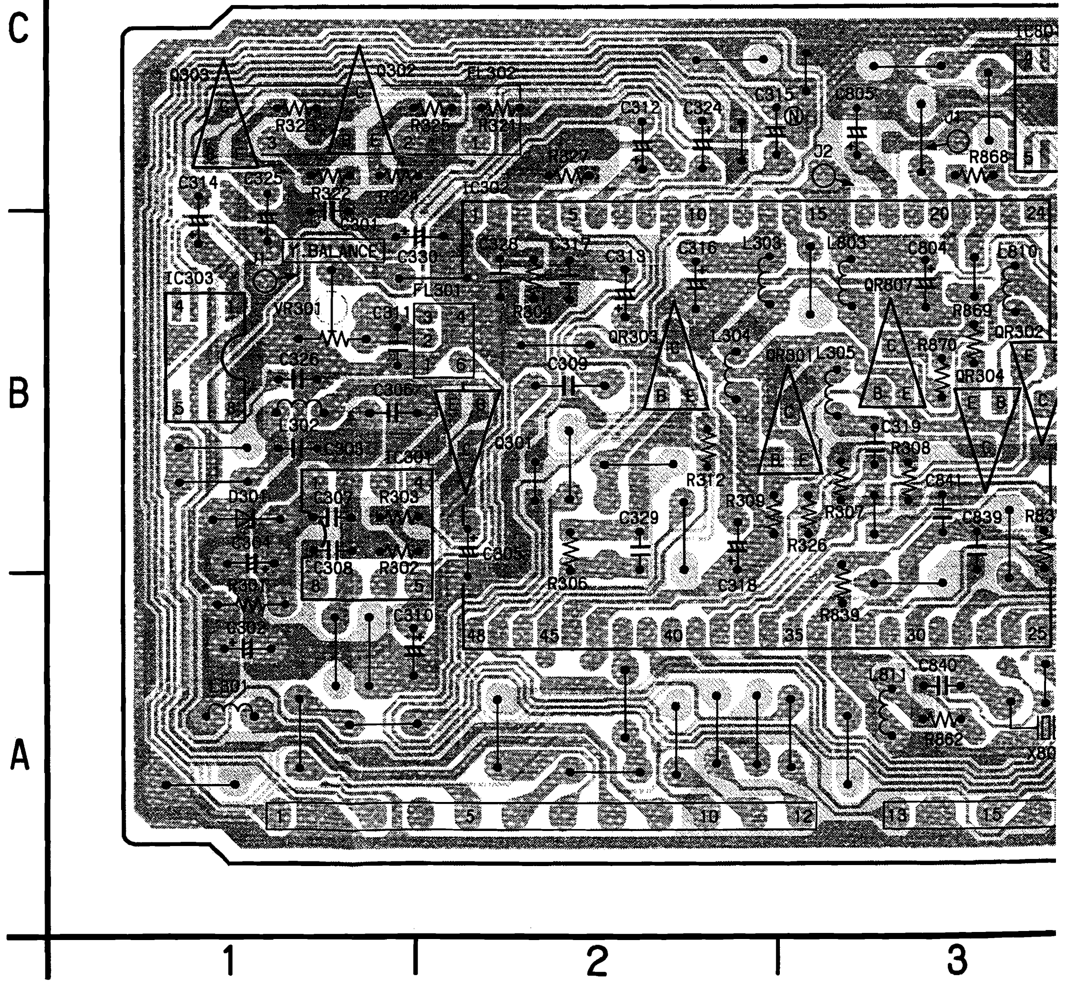

TP3002 REC/PLAY (SECAM)


TP3013 REC (PAL/NTSC)


TP3013 REC (SECAM)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
WITH PAL COLOUR SIGNAL. (SP MODE)

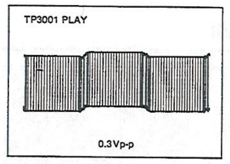
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)

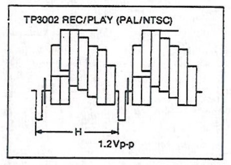

D
C
B
A
1
2
3
BALANCE
VR301
FL301
IC303
QR303
Q301
QR801
QR807
QR802
QR804
L305
L309
L303
R868
R869
R870
R862
R326
R306
R312
R308
R307
R309
R639
C312
C324
C313
C316
C311
C309
C329
C318
C319
C841
C839
C840
C303
C308
C310

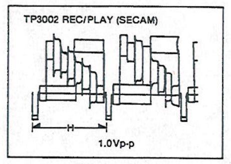
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)

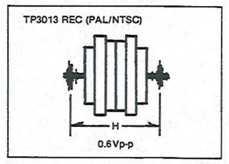
LUMINANCE & CHROMINANCE PACK C.B.A.					
Transistor		QR302	B-3	IC802	C-5
Q301	B-2	QR303	B-2	IC851	D-7
Q302	C-1	QR304	B-3	IC8501	B-6
Q303	C-1	QR802	A-4	**Adjustment**	
Q805	B-4	QR803	A-4	VR301	B-1
Q8501	B-5	QR805	B-4	VR8502	A-4
Q8502	B-5	QR806	B-4	VR8504	A-5
Q8505	B-6	QR807	B-3	FL8504	C-6
Q8506	A-5	**Integrated Circuit**		FL8507	C-7
Q8509	C-6	IC301	B-1	FL8508	B-7
Q8510	A-7	IC302	C-2	T851	D-7
Transistor & Resistor		IC303	B-1		
QR301	B-2	IC801	C-3		

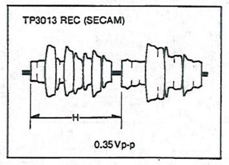
ADDRESS INFORMATION

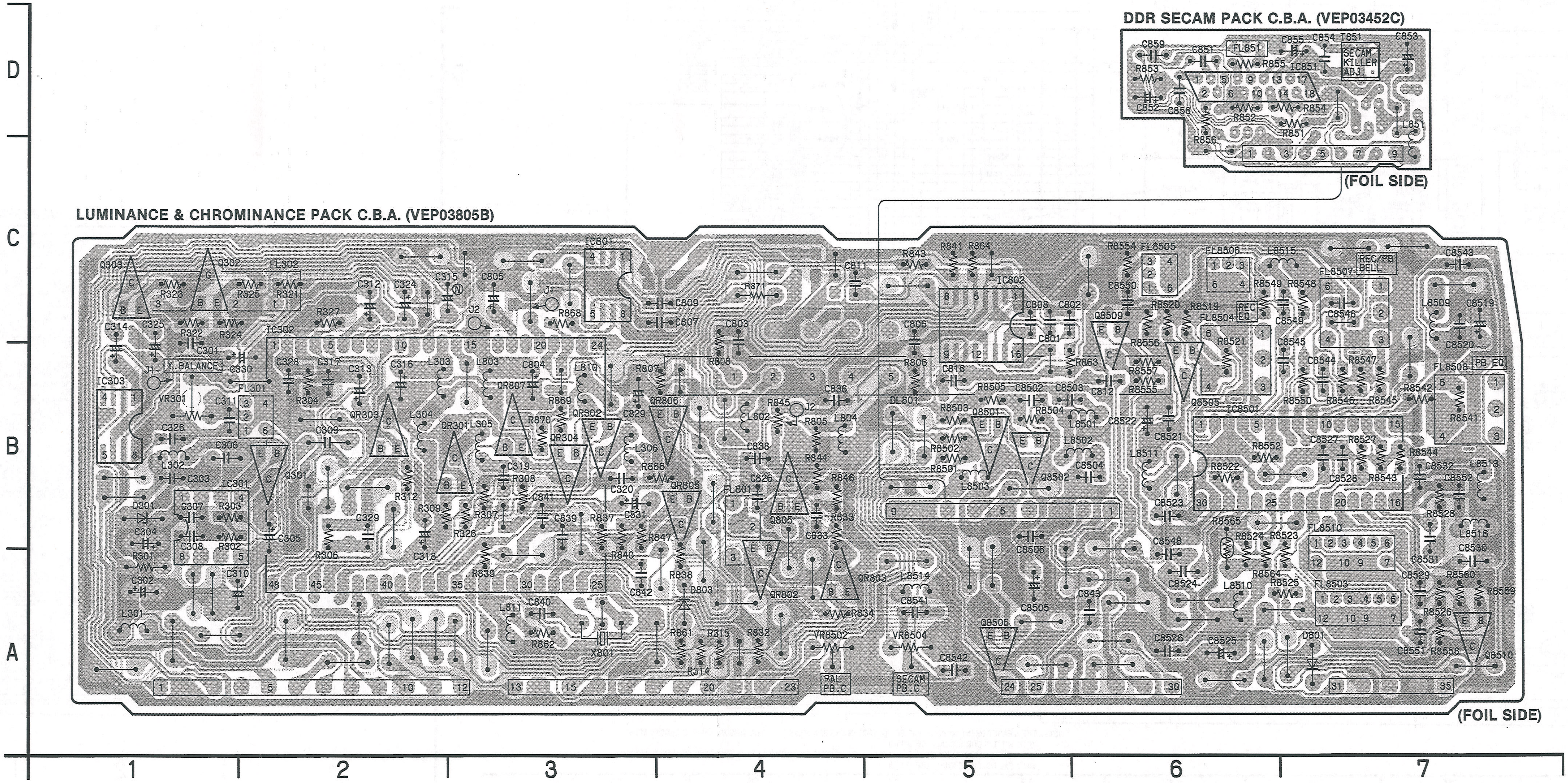










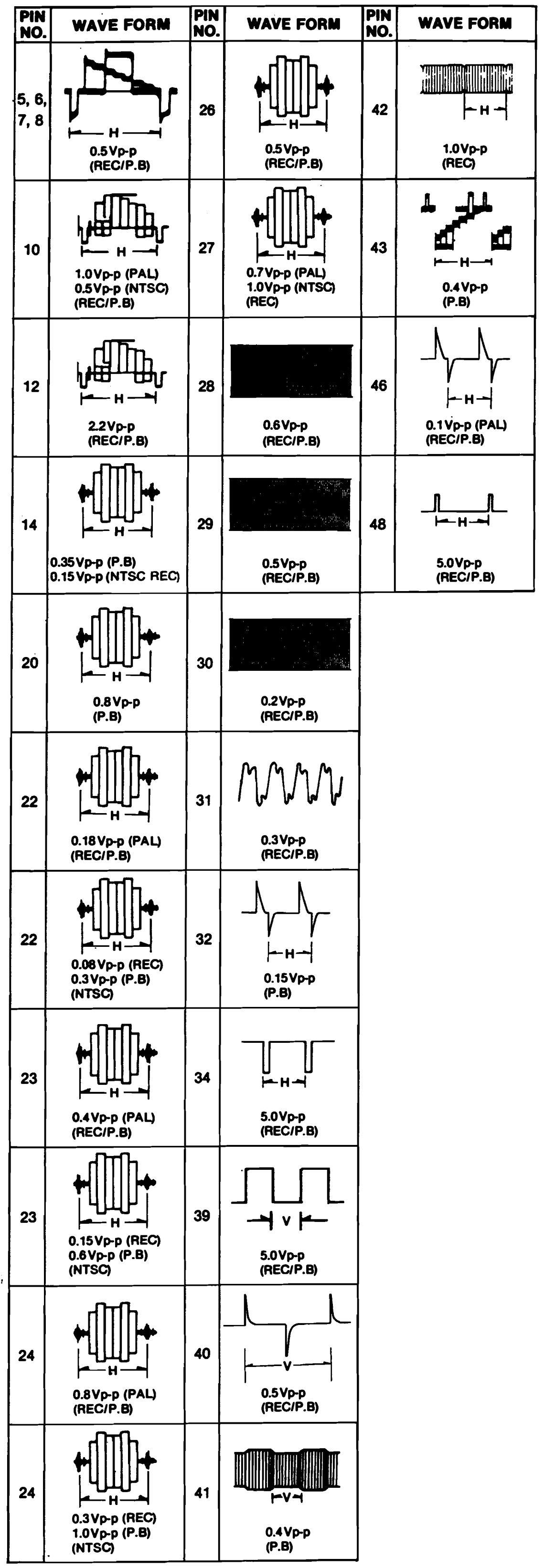


DDR SECAM PACK C.B.A. (VEP03452C)

LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)

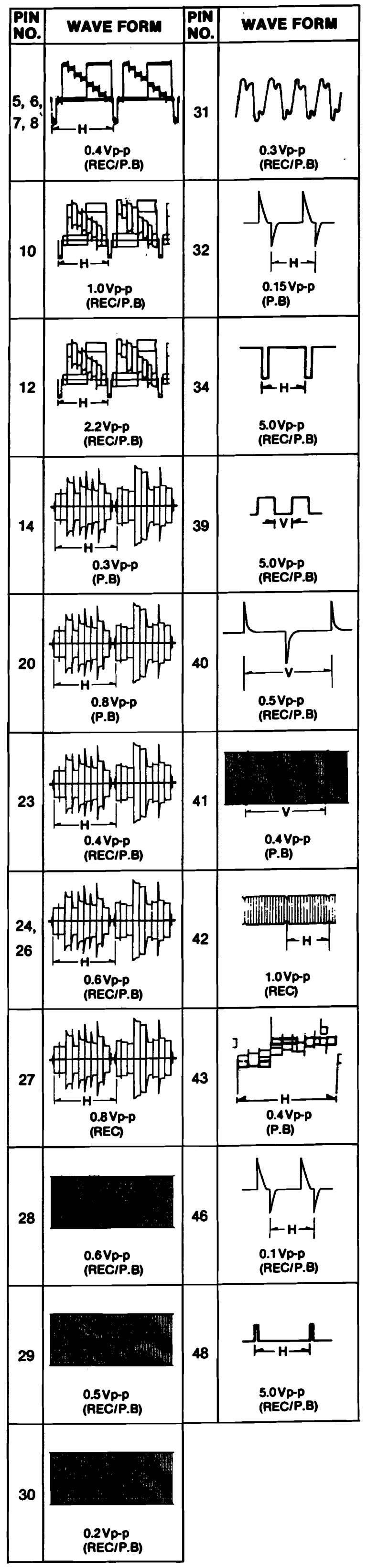
D
C
B
A
1
2
3
4
5
6
7
(FOIL SIDE)
(FOIL SIDE)
SECAM KILLER ADJ.
Y.BALANCE
REC/PB BELL
PB EQ
REC EQ
PAL PB.C
SECAM PB.C
IC801
IC802
IC302
IC301
IC303
IC8501
IC851
T851
FL851
FL302
FL301
FL801
FL8503
FL8504
FL8505
FL8506
FL8507
FL8508
FL8510
DL801
X801
D301
D801
D803
VR301
VR8502
VR8504
J1
J2

IC302 (VEFH14D)
(SP MODE: PAL/NTSC)



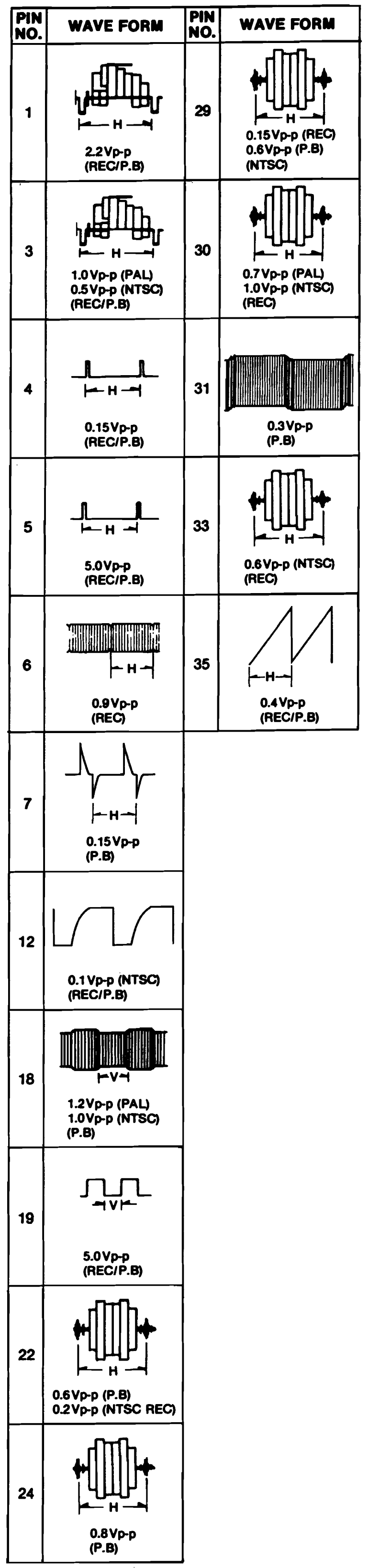
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
5, 6, 7, 8	0.5Vp-p (REC/P.B)	26	0.5Vp-p (REC/P.B)	42	1.0Vp-p (REC)
10	1.0Vp-p (PAL) 0.5Vp-p (NTSC) (REC/P.B)	27	0.7Vp-p (PAL) 1.0Vp-p (NTSC) (REC)	43	0.4Vp-p (P.B)
12	2.2Vp-p (REC/P.B)	28	0.6Vp-p (REC/P.B)	46	0.1Vp-p (PAL) (REC/P.B)
14	0.35Vp-p (P.B) 0.15Vp-p (NTSC REC)	29	0.5Vp-p (REC/P.B)	48	5.0Vp-p (REC/P.B)
20	0.8Vp-p (P.B)	30	0.2Vp-p (REC/P.B)		
22	0.18Vp-p (PAL) (REC/P.B)	31	0.3Vp-p (REC/P.B)		
22	0.08Vp-p (REC) 0.3Vp-p (P.B) (NTSC)	32	0.15Vp-p (P.B)		
23	0.4Vp-p (PAL) (REC/P.B)	34	5.0Vp-p (REC/P.B)		
23	0.15Vp-p (REC) 0.6Vp-p (P.B) (NTSC)	39	5.0Vp-p (REC/P.B)		
24	0.8Vp-p (PAL) (REC/P.B)	40	0.5Vp-p (REC/P.B)		
24	0.3Vp-p (REC) 1.0Vp-p (P.B) (NTSC)	41	0.4Vp-p (P.B)		

IC302 (VEFH14D)
(SP MODE: SECAM)



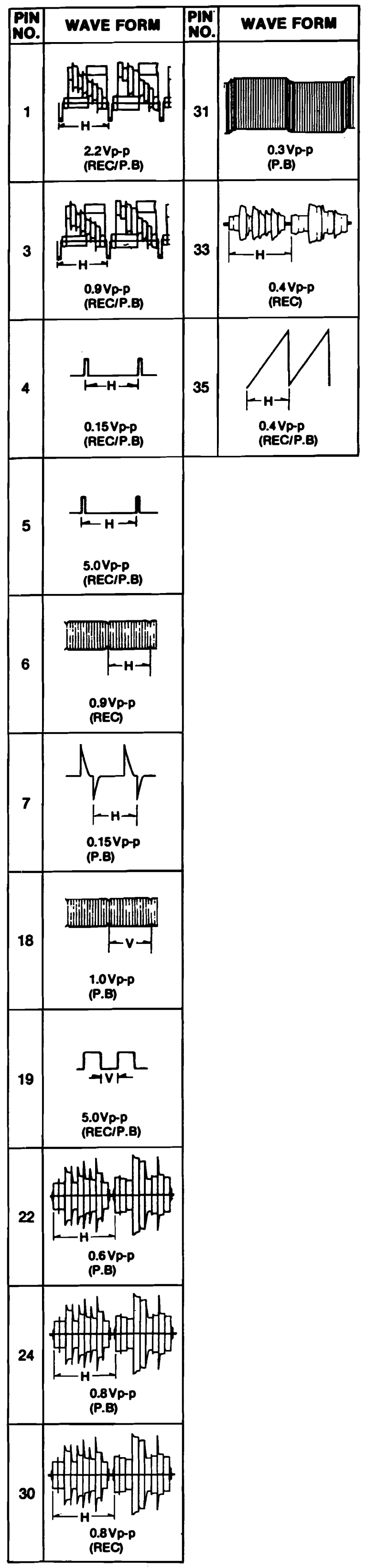
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
5, 6, 7, 8	0.4Vp-p (REC/P.B)	31	0.3Vp-p (REC/P.B)
10	1.0Vp-p (REC/P.B)	32	0.15Vp-p (P.B)
12	2.2Vp-p (REC/P.B)	34	5.0Vp-p (REC/P.B)
14	0.3Vp-p (P.B)	39	5.0Vp-p (REC/P.B)
20	0.8Vp-p (P.B)	40	0.5Vp-p (REC/P.B)
23	0.4Vp-p (REC/P.B)	41	0.4Vp-p (P.B)
24, 26	0.6Vp-p (REC/P.B)	42	1.0Vp-p (REC)
27	0.8Vp-p (REC)	43	0.4Vp-p (P.B)
28	0.6Vp-p (REC/P.B)	46	0.1Vp-p (REC/P.B)
29	0.5Vp-p (REC/P.B)	48	5.0Vp-p (REC/P.B)
30	0.2Vp-p (REC/P.B)		

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS
(SP MODE: PAL/NTSC)



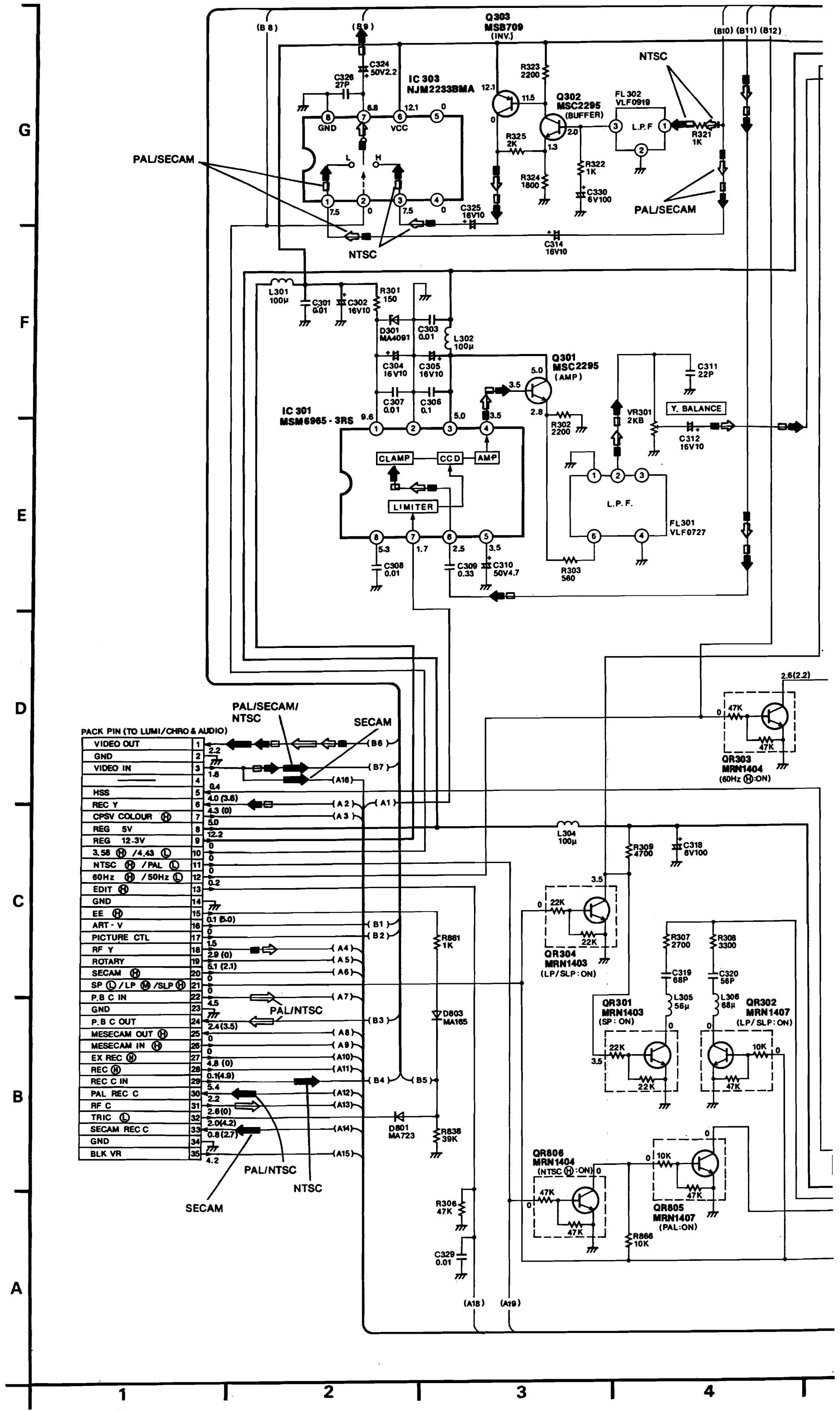
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
1	2.2Vp-p (REC/P.B)	29	0.15Vp-p (REC) 0.6Vp-p (P.B) (NTSC)
3	1.0Vp-p (PAL) 0.5Vp-p (NTSC) (REC/P.B)	30	0.7Vp-p (PAL) 1.0Vp-p (NTSC) (REC)
4	0.15Vp-p (REC/P.B)	31	0.3Vp-p (P.B)
5	5.0Vp-p (REC/P.B)	33	0.6Vp-p (NTSC) (REC)
6	0.9Vp-p (REC)	35	0.4Vp-p (REC/P.B)
7	0.15Vp-p (P.B)		
12	0.1Vp-p (NTSC) (REC/P.B)		
18	1.2Vp-p (PAL) 1.0Vp-p (NTSC) (P.B)		
19	5.0Vp-p (REC/P.B)		
22	0.6Vp-p (P.B) 0.2Vp-p (NTSC REC)		
24	0.8Vp-p (P.B)		

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS
(SP MODE: SECAM)



PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
1	2.2Vp-p (REC/P.B)	31	0.3Vp-p (P.B)
3	0.9Vp-p (REC/P.B)	33	0.4Vp-p (REC)
4	0.15Vp-p (REC/P.B)	35	0.4Vp-p (REC/P.B)
5	5.0Vp-p (REC/P.B)		
6	0.9Vp-p (REC)		
7	0.15Vp-p (P.B)		
18	1.0Vp-p (P.B)		
19	5.0Vp-p (REC/P.B)		
22	0.6Vp-p (P.B)		
24	0.8Vp-p (P.B)		
30	0.8Vp-p (REC)		

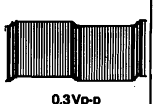
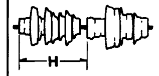
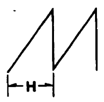
LUMINANCE & CHROMINANCE SCHEMATIC DIAGI


G
F
E
D
C
B
A
1
2
3
4
(B 8)
(B 9)
(B10) (B11) (B12)
Q303
MSB709
(INV.)
C324
50V2.2
C326
27P
IC 303
NJM2233BMA
GND
VCC
R323
2200
Q302
MSC2295
(BUFFER)
FL 302
VLF0919
L.P.F
R321
1K
NTSC
PAL/SECAM
R325
2K
R324
1800
R322
1K
C330
6V100
C325
16V10
C314
16V10
L301
100µ
C301
0.01
C302
16V10
R301
150
D301
MA4091
C303
0.01
L302
100µ
C304
16V10
C305
16V10
C307
0.01
C306
0.1
Q301
MSC2295
(AMP)
R302
2200
VR301
2KB
Y. BALANCE
C311
22P
C312
16V10
IC 301
MSM6965 - 3RS
CLAMP
CCD
AMP
LIMITER
C308
0.01
C309
0.33
C310
50V4.7
R303
560
L.P.F.
FL301
VLF0727
QR303
MRN1404
(60Hz Ⓗ:ON)
L304
100µ
R309
4700
C318
6V100
QR304
MRN1403
(LP/SLP : ON)
R307
2700
R308
3300
C319
68P
C320
56P
L305
56µ
L306
68µ
QR301
MRN1403
(SP : ON)
QR302
MRN1407
(LP/SLP : ON)
22K
47K
10K
QR806
MRN1404
(NTSC Ⓗ :ON)
QR805
MRN1407
(PAL:ON)
R866
10K
R861
1K
D803
MA165
D801
MA723
R838
39K
R306
47K
C329
0.01
(A18)
(A19)
PAL/SECAM/
NTSC
SECAM
PAL/NTSC
NTSC
(B6)
(B7)
(A16)
(A1)
(A2)
(A3)
(B1)
(B2)
(A4)
(A5)
(A6)
(A7)
(B3)
(A8)
(A9)
(A10)
(A11)
(B4)
(B5)
(A12)
(A13)
(A14)
(A15)

PACK PIN (TO LUMI/CHRO & AUDIO)

VIDEO OUT	1
GND	2
VIDEO IN	3
———	4
HSS	5
REC Y	6
CPSV COLOUR Ⓗ	7
REG 5V	8
REG 12.3V	9
3.58 Ⓗ /4.43 Ⓛ	10
NTSC Ⓗ /PAL Ⓛ	11
60Hz Ⓗ /50Hz Ⓛ	12
EDIT Ⓗ	13
GND	14
EE Ⓗ	15
ART - V	16
PICTURE CTL	17
RF Y	18
ROTARY	19
SECAM Ⓗ	20
SP Ⓛ / LP Ⓜ /SLP Ⓗ	21
P.B C IN	22
GND	23
P.B C OUT	24
MESECAM OUT Ⓗ	25
MESECAM IN Ⓗ	26
EX REC Ⓗ	27
REC Ⓗ	28
REC C IN	29
PAL REC C	30
RF C	31
TRIC Ⓛ	32
SECAM REC C	33
GND	34
BLK VR	35

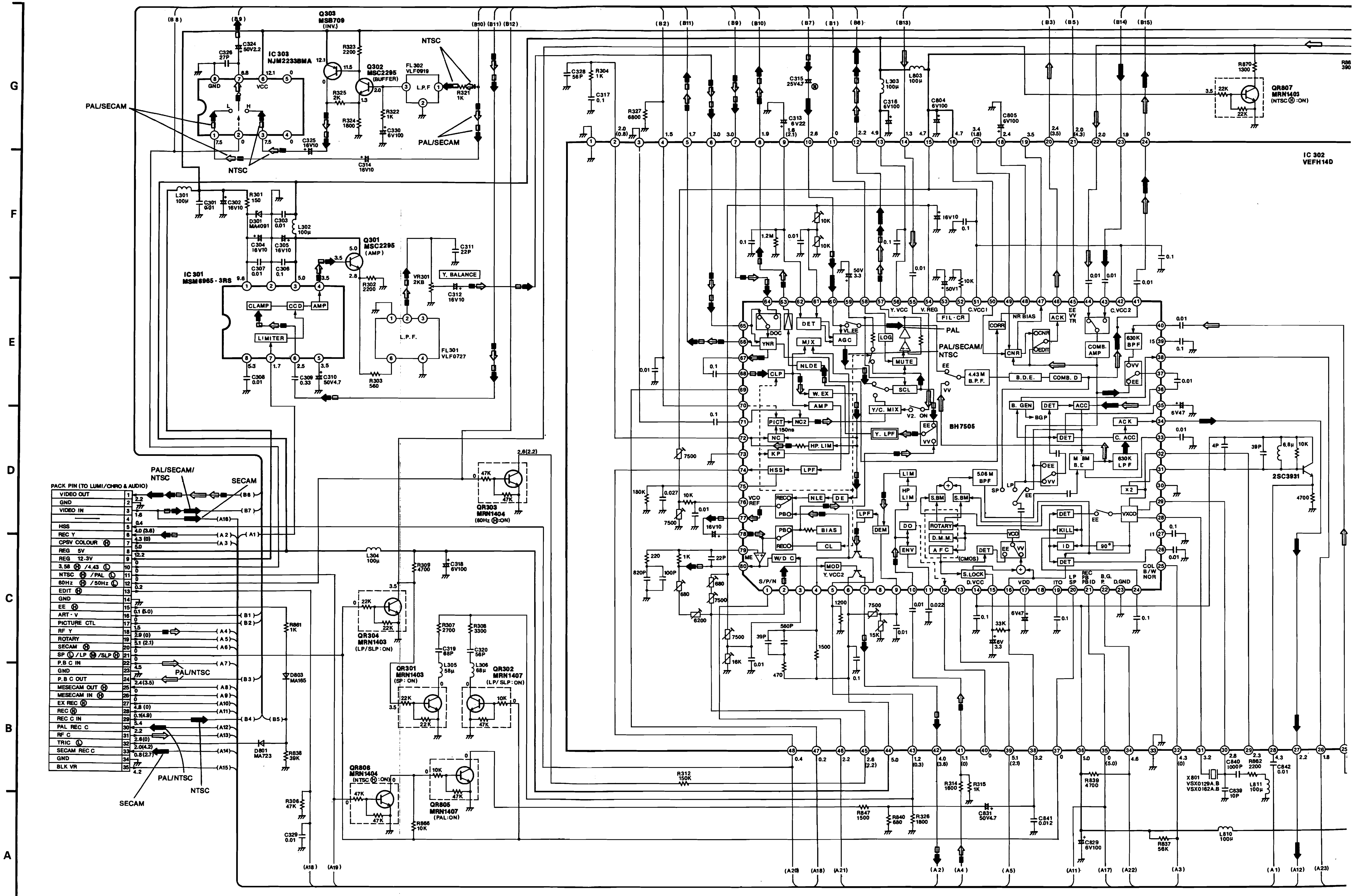
LUMINANCE
CE PACK PINS
AM)

N D.	WAVE FORM
1	 0.3Vp-p (P.B)
3	 0.4Vp-p (REC)
5	 0.4Vp-p (REC/P.B)

LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

LUMINANCE MAIN SIGNAL PATH IN REC MODE
CHROMINANCE MAIN SIGNAL PATH IN REC MODE

LUMINAN
CHROMI


G
F
E
D
C
B
A
IC 303
NJM2233BMA
Q303
MSB709
(INV.)
Q302
MSC2295
(BUFFER)
FL302
VLF0919
L.P.F
NTSC
PAL/SECAM
GND
VCC
C324 50V2.2
C326 27P
R323 2200
R325 2K
R324 1800
R322 1K
C330 6V100
R321 1K
C325 16V10
C314 16V10
L301 100μ
C301 0.01
C302 16V10
R301 150
D301 MA4091
C303 0.01
L302 100μ
C304 16V10
C305 16V10
C307 0.01
C306 0.1
IC 301
MSM6965-3RS
CLAMP
CCD
AMP
LIMITER
C308 0.01
C309 0.33
C310 50V4.7
Q301
MSC2295
(AMP)
R302 2200
VR301 2KB
Y. BALANCE
C311 22P
C312 16V10
L.P.F.
FL301
VLF0727
R303 560
QR303
MRN1404
(60Hz H:ON)
L304 100μ
R309 4700
C318 6V100
QR304
MRN1403
(LP/SLP:ON)
R307 2700
R308 3300
C319 68P
C320 56P
L305 58μ
L306 68μ
QR301
MRN1403
(SP:ON)
QR302
MRN1407
(LP/SLP:ON)
QR806
MRN1404
(NTSC H:ON)
QR805
MRN1407
(PAL:ON)
R861 1K
D803 MA165
D801 MA723
R838 39K
R306 47K
C329 0.01
R866 10K
PAL/SECAM/
NTSC
SECAM
PAL/NTSC
C328 56P
R304 1K
C317 0.1
R327 6800
C315 25V4.7
C313 6V22
L303 100μ
L803 100μ
C316 6V100
C804 6V100
C805 6V100
IC 302
VEFH14D
R870 1300
QR807
MRN1403
(NTSC H:ON)
BH7505
DOC
YNR
DET
MIX
AGC
LOG
NLDE
MUTE
CLP
W. EX
AMP
SCL
PICT
NC2
NC
HP. LIM
KP
HSS
LPF
Y/C. MIX
Y. LPF
FIL-CR
CORR
NR BIAS
ACK
CNR
COMB. AMP
630K BPF
4.43M B.P.F.
B.D.E.
COMB. D
B. GEN
DET
ACC
C. ACC
630K LPF
M 8M B.E
5.06 M BPF
LIM
HP LIM
S.BM
ROTARY
D.M.M.
AFC
(CMOS)
S.LOCK
VCO
KILL
ID
90°
X2
VXCO
NLE
DE
LPF
BIAS
CL
W/D C
MOD
DEM
DO
ENV
VCO REF
RECO
PBO
Y. VCC
Y. VCC2
C. VCC1
C. VCC2
V. REG
D.VCC
VDD
D.GND
COL B/W NOR
LP SP
REC PB
ITO
B.G.
P. ID
S/P/N
PAL
PAL/SECAM/
NTSC
EE
VV
R312 150K
R314 1600
R315 1K
R847 1500
R840 680
R326 1800
C831 50V4.7
C841 0.012
R839 4700
C829 6V100
R837 56K
L810 100μ
X801
VSX0129A.B
VSX0162A.B
C839 10P
C840 1000P
R862 2200
C842 0.01
L811 100μ
2SC3931
(A20)
(A18)
(A21)
(A2)
(A4)
(A5)
(A11)
(A17)
(A22)
(A3)
(A1)
(A12)
(A23)
(A19)
(B8)
(B9)
(B10)
(B11)
(B12)
(B2)
(B7)
(B1)
(B6)
(B13)
(B3)
(B5)
(B14)
(B15)

PACK PIN (TO LUMI/CHRO & AUDIO)

VIDEO OUT	1	2.2	(B6)
GND	2		
VIDEO IN	3	1.6	(B7)
———	4	0.4	(A16)
HSS	5	4.0 (3.6)	
REC Y	6	4.3 (0)	(A2) (A1)
CPSV COLOUR Ⓗ	7	5.0	(A3)
REG 5V	8	12.2	
REG 12.3V	9	0	
3.58 Ⓗ /4.43 Ⓛ	10	0	
NTSC Ⓗ /PAL Ⓛ	11	0	
60Hz Ⓗ /50Hz Ⓛ	12	0.2	
EDIT Ⓗ	13		
GND	14		
EE Ⓗ	15	0.1 (5.0)	
ART - V	16	0	(B1)
PICTURE CTL	17	1.5	(B2)
RF Y	18	2.9 (0)	(A4)
ROTARY	19	5.1 (2.1)	(A5)
SECAM Ⓗ	20	0	(A6)
SP Ⓛ/LP Ⓜ/SLP Ⓗ	21	0	
P.B C IN	22	4.5	(A7)
GND	23		
P.B C OUT	24	2.4 (3.5)	(B3)
MESECAM OUT Ⓗ	25	0	(A8)
MESECAM IN Ⓗ	26	0	(A9)
EX REC Ⓗ	27	4.8 (0)	(A10)
REC Ⓗ	28	0.1 (4.9)	(A11)
REC C IN	29	5.4	(B4) (B5)
PAL REC C	30	2.2	(A12)
RF C	31	2.6 (0)	(A13)
TRIC Ⓛ	32	2.0 (4.2)	
SECAM REC C	33	0.8 (2.7)	(A14)
GND	34		
BLK VR	35	4.2	(A15)

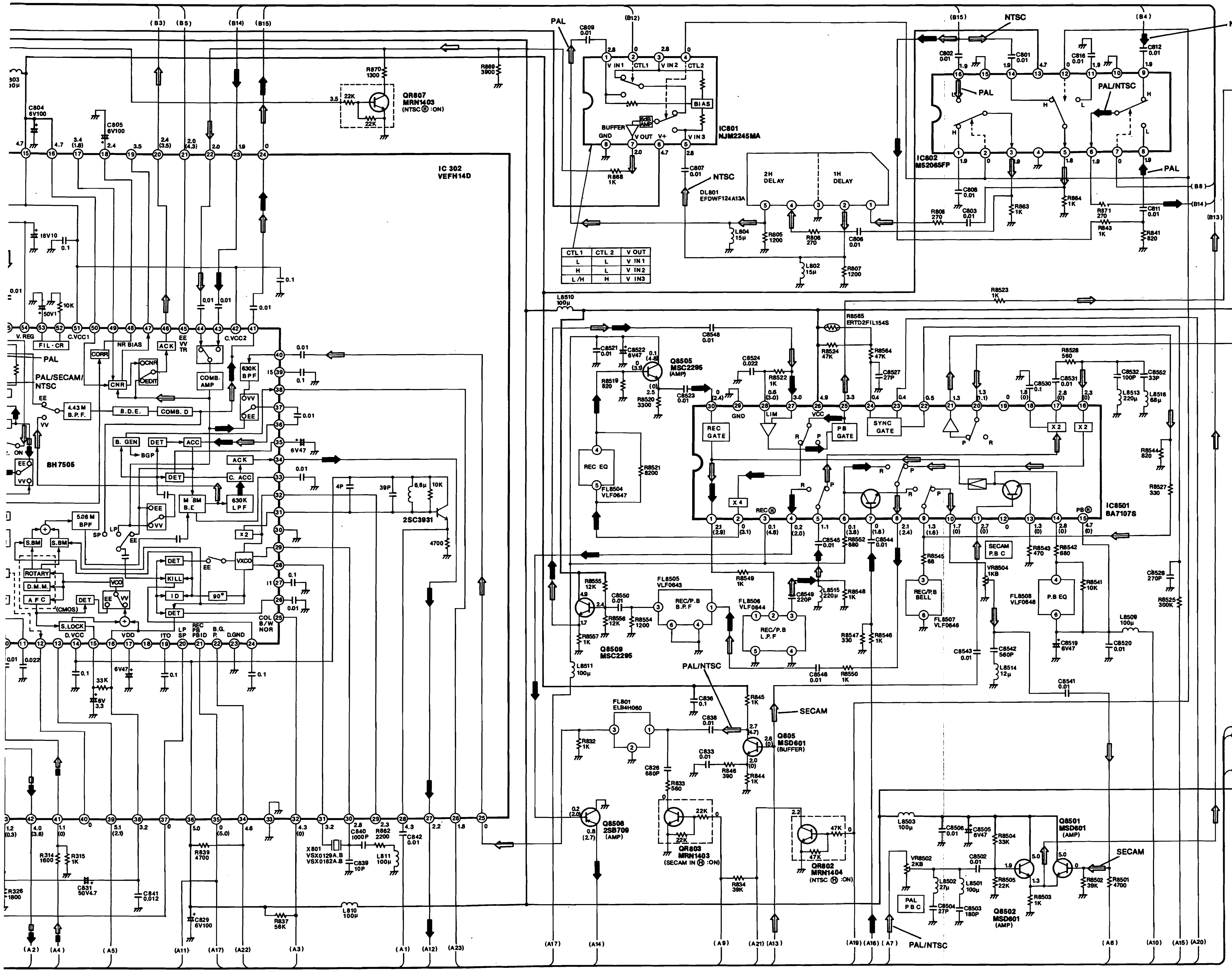
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE
WITH PAL COLOUR SIGNAL. (SP MODE)

1 2 3 4 5 6 7 8 9 10

N SIGNAL PATH IN REC MODE
IAIN SIGNAL PATH IN REC MODE

LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE
CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE


IC 302
VEFH14D
IC801
NJM2245MA
CTL 1 | CTL 2 | V OUT
L | L | V IN1
H | L | V IN2
L/H | H | V IN3
DL801
EFDWF124A13A
2H DELAY
1H DELAY
IC802
M52065FP
FL8503
VLF0645
P.B B.P.F
FL8510
VLF0649
EQ
Q8510
MSC2295
(AMP)
QR807
MRN1403
(NTSC Ⓗ :ON)
BH7505
2SC3931
Q8505
MSC2295
(AMP)
IC8501
BA7107S
REC GATE
SYNC GATE
PB GATE
REC EQ
FL8504
VLF0647
FL8505
VLF0643
REC/P.B
B.P.F
FL8506
VLF0644
REC/P.B
L.P.F
FL8507
VLF0646
REC/PB
BELL
FL8508
VLF0648
P.B EQ
SECAM
P.B C
Q8509
MSC2295
IC 851
BA7025L
(SECAM DET.)
FL851
VLF0793
SECAM
KILLER
T851
ELM7Q207A
BG. PULSE
SECAM Ⓗ
GND
GND
REC/PB CHROMA
REG 5 V
REG 5 V
DDR SECAM PACK C.B.A.
(VEP03452C)
FL801
ELB4H060
Q605
MSD601
(BUFFER)
Q8506
2SB709
(AMP)
QR803
MRN1403
(SECAM IN Ⓗ :ON)
QR802
MRN1404
(NTSC Ⓗ :ON)
Q8501
MSD601
(AMP)
Q8502
MSD601
(AMP)
PAL
NTSC
SECAM
PAL/NTSC
X801
VSX0129A.B
VSX0182A.B

EMATIC DIAGRAM FOR
TO PARTS LIST.

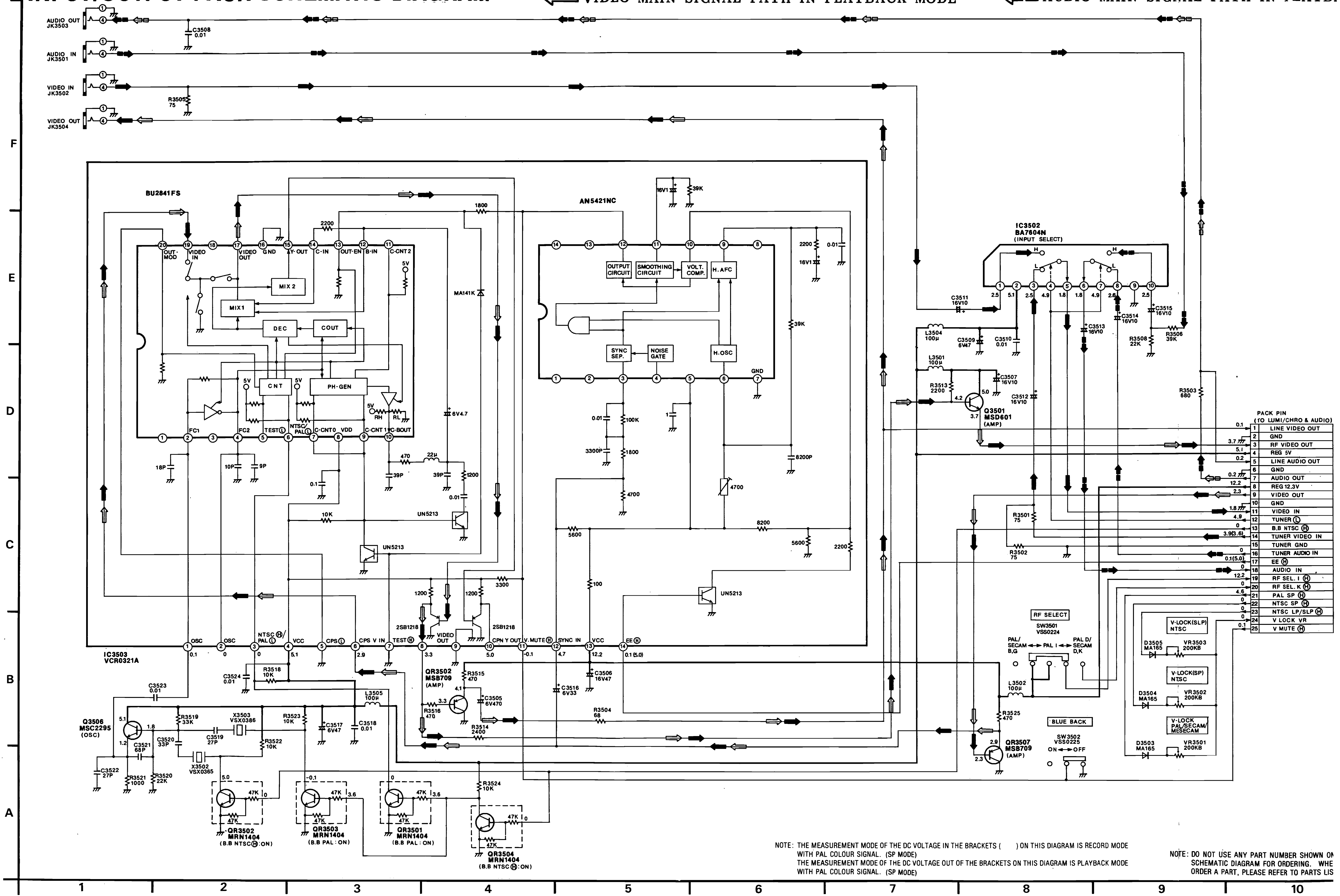
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

INPUT/OUTPUT PACK SCHEMATIC DIAGRAM

◀ VIDEO MAIN SIGNAL PATH IN REC MODE
⇦ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

◀ AUDIO MAIN SIGNAL PATH IN REC MC
⇦ AUDIO MAIN SIGNAL PATH IN PLAYBA

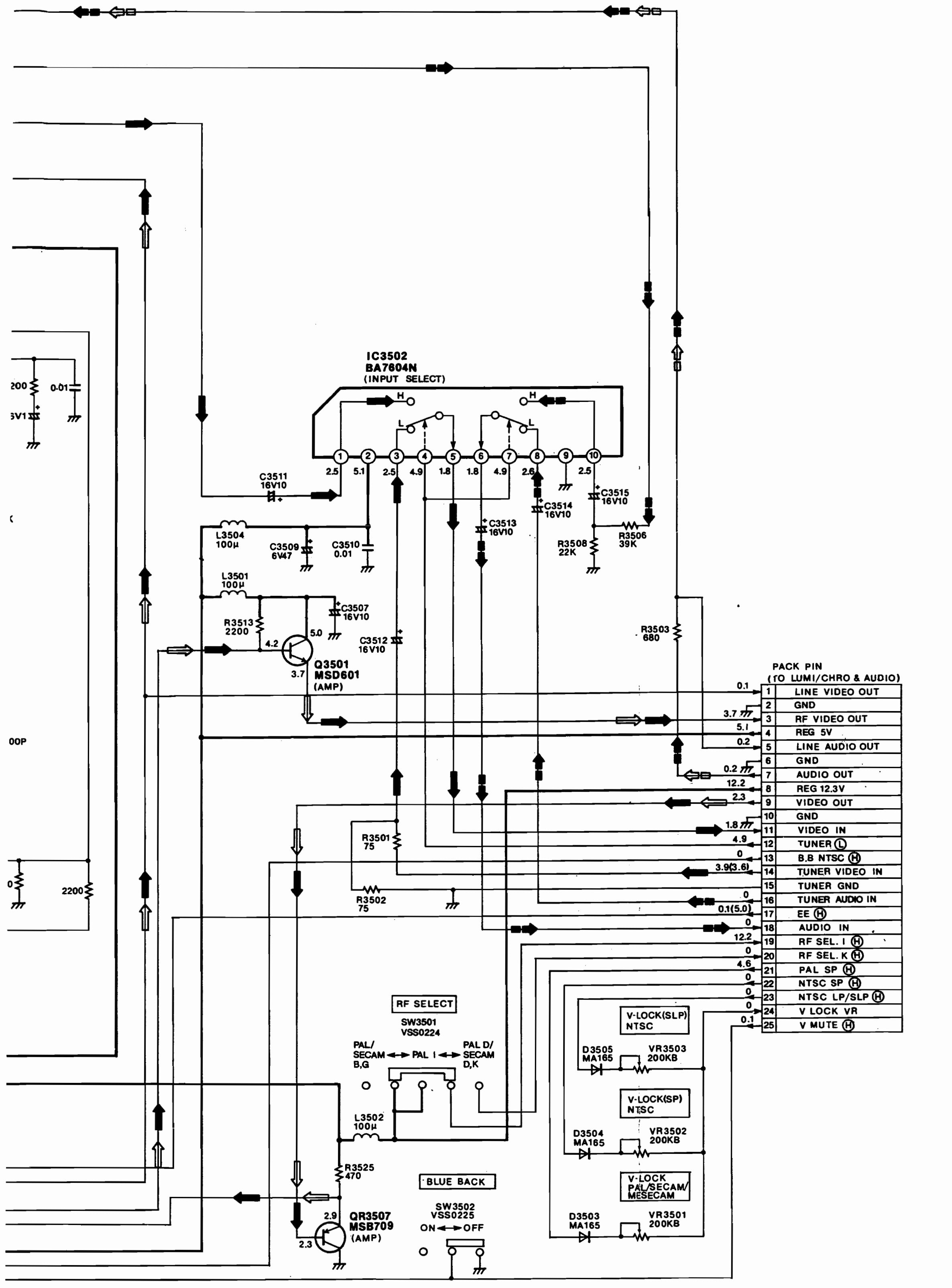

AUDIO OUT JK3503
AUDIO IN JK3501
VIDEO IN JK3502
VIDEO OUT JK3504
C3508 0.01
R3505 75
BU2841FS
AN5421NC
IC3502 BA7604N (INPUT SELECT)
MIX 2
MIX 1
DEC
COUT
CNT
PH-GEN
OUTPUT CIRCUIT
SMOOTHING CIRCUIT
VOLT. COMP.
H. AFC
SYNC SEP.
NOISE GATE
H.OSC
MA141K
UN5213
2SB1218
IC3503 VCR0321A
Q3501 MSD601 (AMP)
QR3502 MSB709 (AMP)
QR3507 MSB709 (AMP)
Q3506 MSC2295 (OSC)
X3503 VSX0386
X3502 VSX0365
L3505 100µ
L3504 100µ
L3501 100µ
L3502 100µ
QR3502 MRN1404 (B.B NTSC Ⓗ:ON)
QR3503 MRN1404 (B.B PAL : ON)
QR3501 MRN1404 (B.B PAL : ON)
QR3504 MRN1404 (B.B NTSC Ⓗ:ON)
RF SELECT
SW3501 VSS0224
PAL/SECAM B,G
PAL I
PAL D/SECAM D,K
BLUE BACK
SW3502 VSS0225
ON OFF
V-LOCK(SLP) NTSC
V-LOCK(SP) NTSC
V-LOCK PAL/SECAM/MESECAM
D3505 MA165
D3504 MA165
D3503 MA165
VR3503 200KB
VR3502 200KB
VR3501 200KB
PACK PIN (TO LUMI/CHRO & AUDIO)
1 LINE VIDEO OUT
2 GND
3 RF VIDEO OUT
4 REG 5V
5 LINE AUDIO OUT
6 GND
7 AUDIO OUT
8 REG 12.3V
9 VIDEO OUT
10 GND
11 VIDEO IN
12 TUNER Ⓛ
13 B.B NTSC Ⓗ
14 TUNER VIDEO IN
15 TUNER GND
16 TUNER AUDIO IN
17 EE Ⓗ
18 AUDIO IN
19 RF SEL. I Ⓗ
20 RF SEL. K Ⓗ
21 PAL SP Ⓗ
22 NTSC SP Ⓗ
23 NTSC LP/SLP Ⓗ
24 V LOCK VR
25 V MUTE Ⓗ
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN O
SCHEMATIC DIAGRAM FOR ORDERING. WHE
ORDER A PART, PLEASE REFER TO PARTS LIS

N REC MODE
N PLAYBACK MODE

◀■ AUDIO MAIN SIGNAL PATH IN REC MODE
◁□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

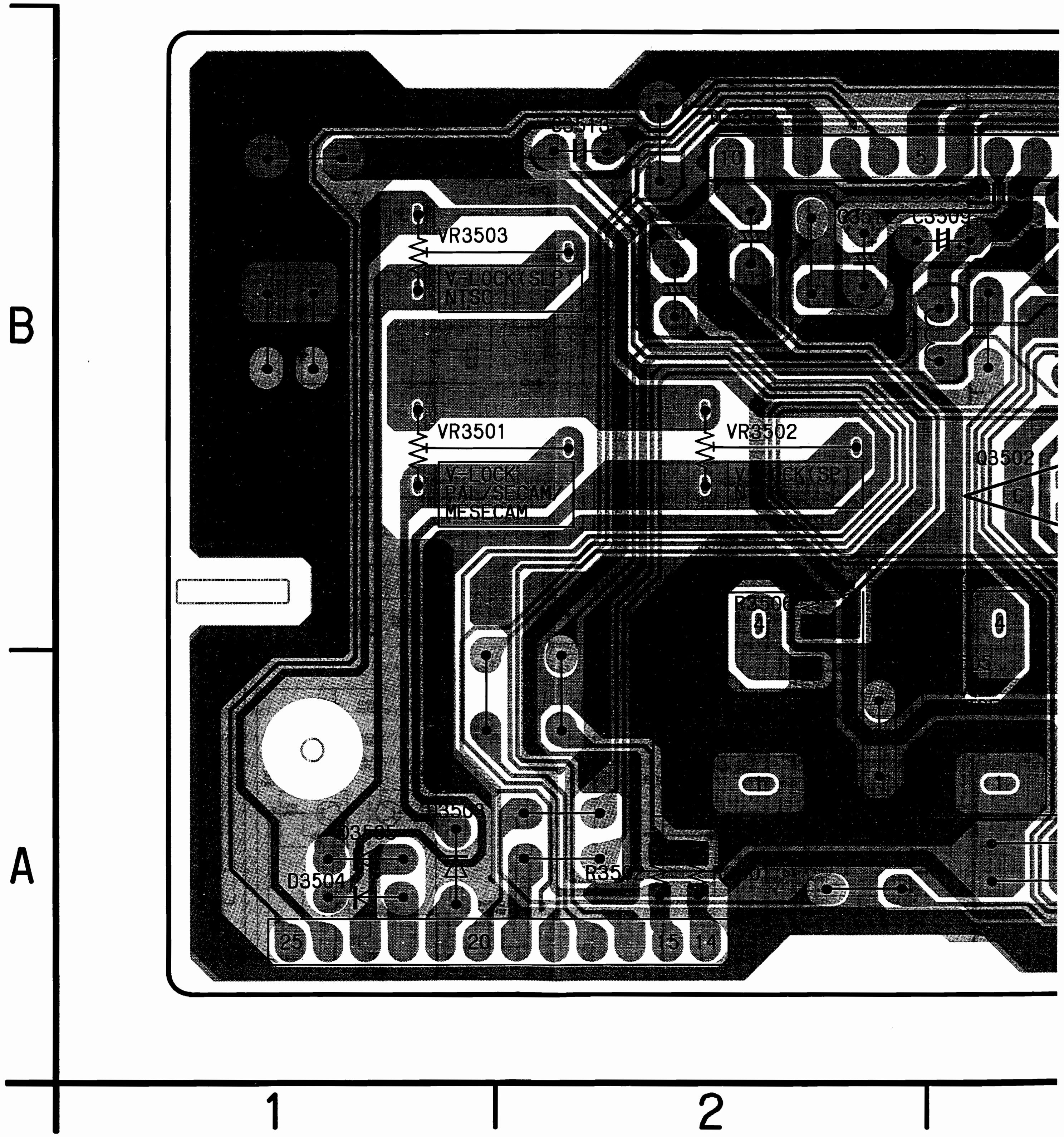

IC3502
BA7604N
(INPUT SELECT)
H
L
2.5
5.1
2.5
4.9
1.8
1.8
4.9
2.6
2.5
C3511
16V10
C3515
16V10
C3514
16V10
C3513
16V10
R3506
39K
R3508
22K
L3504
100μ
C3509
6V47
C3510
0.01
L3501
100μ
C3507
16V10
R3513
2200
4.2
5.0
3.7
C3512
16V10
Q3501
MSD601
(AMP)
R3503
680
PACK PIN
(TO LUMI/CHRO & AUDIO)
1 LINE VIDEO OUT 0.1
2 GND
3 RF VIDEO OUT 3.7
4 REG 5V 5.1
5 LINE AUDIO OUT 0.2
6 GND
7 AUDIO OUT 0.2
8 REG 12.3V 12.2
9 VIDEO OUT 2.3
10 GND
11 VIDEO IN 1.8
12 TUNER Ⓛ 4.9
13 B.B NTSC Ⓗ 0
14 TUNER VIDEO IN 3.9(3.6)
15 TUNER GND
16 TUNER AUDIO IN 0
17 EE Ⓗ 0.1(5.0)
18 AUDIO IN 0
19 RF SEL. I Ⓗ 12.2
20 RF SEL. K Ⓗ 0
21 PAL SP Ⓗ 4.6
22 NTSC SP Ⓗ 0
23 NTSC LP/SLP Ⓗ 0
24 V LOCK VR 0
25 V MUTE Ⓗ 0.1
R3501
75
R3502
75
200
0.01
6V1
00P
2200
RF SELECT
SW3501
VSS0224
PAL/
SECAM
B,G
PAL I
PAL D/
SECAM
D,K
L3502
100μ
R3525
470
QR3507
MSB709
(AMP)
2.9
2.3
BLUE BACK
SW3502
VSS0225
ON ◀▶ OFF
V-LOCK(SLP)
NTSC
D3505
MA165
VR3503
200KB
V-LOCK(SP)
NTSC
D3504
MA165
VR3502
200KB
V-LOCK
PAL/SECAM/
MESECAM
D3503
MA165
VR3501
200KB

HE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　　) ON THIS DIAGRAM IS RECORD MODE
VITH PAL COLOUR SIGNAL. (SP MODE)
HE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
VITH PAL COLOUR SIGNAL. (SP MODE)

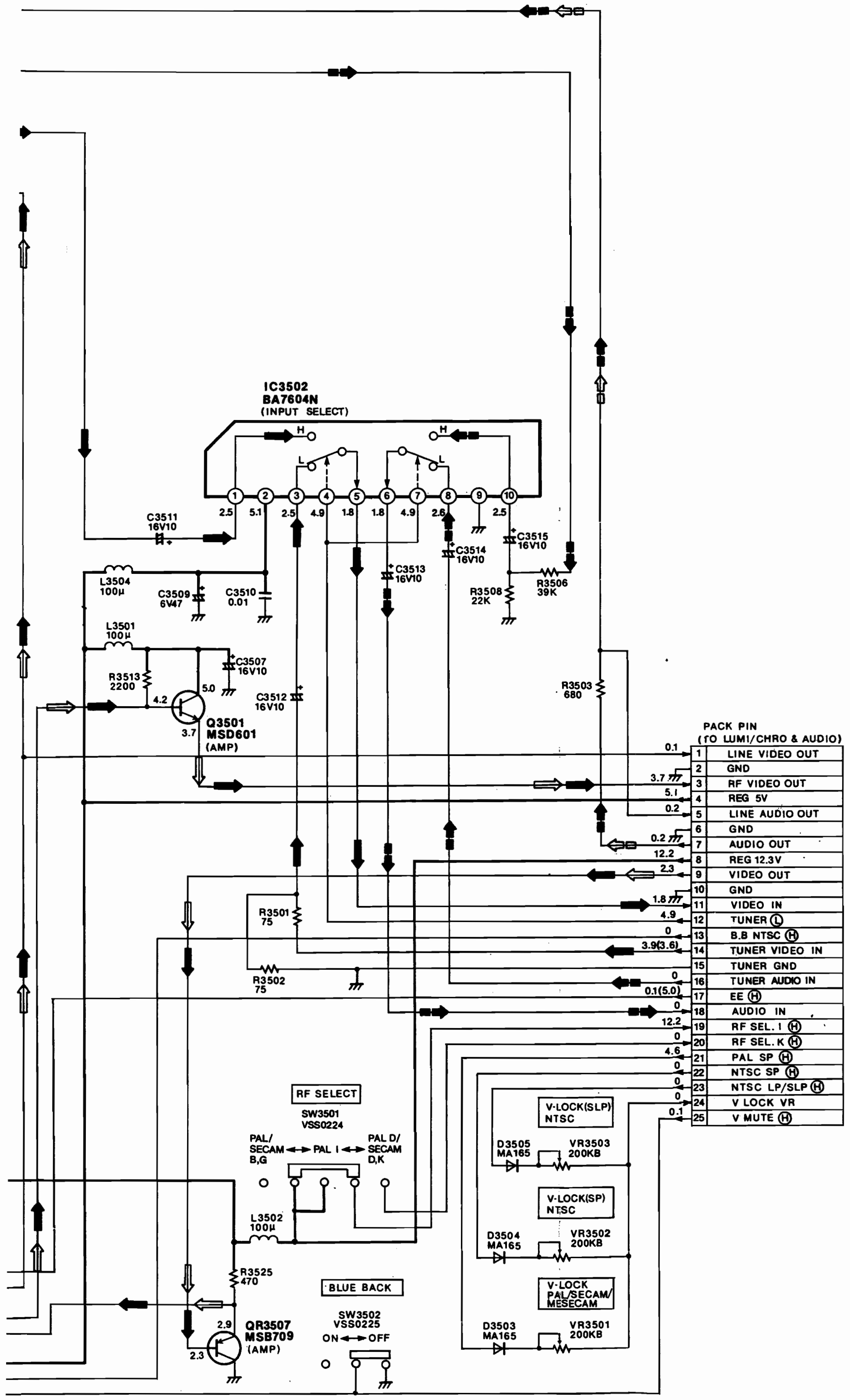
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

7 8 9 10

INPUT/OUTPUT PACK C.B.A. (VEP03806B)


B
A
1
2
VR3503
V-LOCK(SLP)
NTSC
VR3501
V-LOCK
PAL/SECAM
MESECAM
VR3502
V-LOCK(SP)
NTSC
Q3502
R3506
D3505
D3504
R3508
R35
25
20
15
14
10
5

DE ⬅■ AUDIO MAIN SIGNAL PATH IN REC MODE
CK MODE ⇦□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



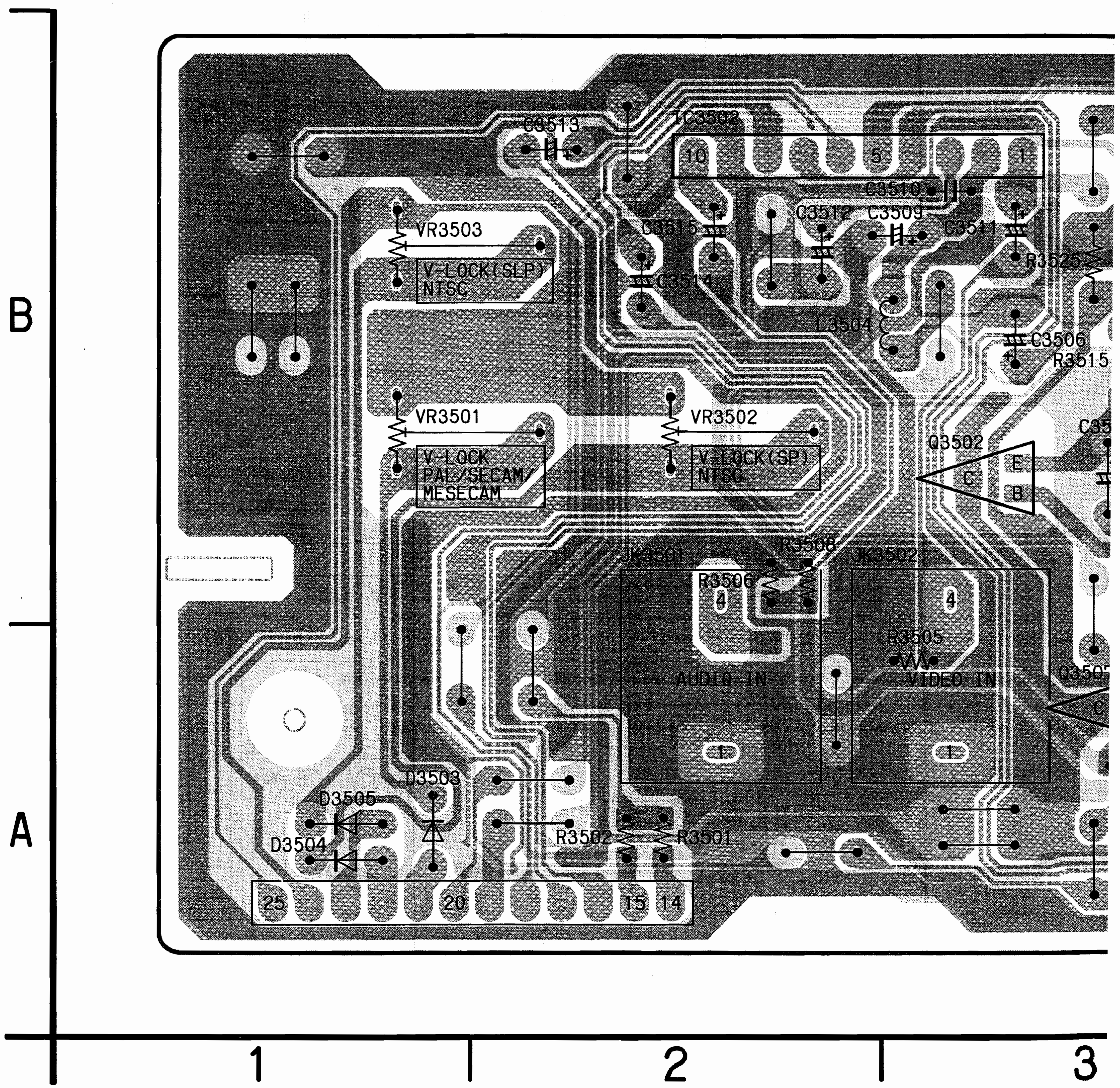
IC3502
BA7604N
(INPUT SELECT)
H
L
2.5 5.1 2.5 4.9 1.8 1.8 4.9 2.6 2.5
C3511 16V10
C3515 16V10
C3514 16V10
C3513 16V10
L3504 100μ
C3509 6V47
C3510 0.01
R3508 22K
R3506 39K
L3501 100μ
R3513 2200
C3507 16V10
C3512 16V10
Q3501 MSD601 (AMP)
5.0 4.2 3.7
R3503 680
PACK PIN
(TO LUMI/CHRO & AUDIO)
1 LINE VIDEO OUT 0.1
2 GND
3 RF VIDEO OUT 3.7
4 REG 5V 5.1
5 LINE AUDIO OUT 0.2
6 GND
7 AUDIO OUT 0.2
8 REG 12.3V 12.2
9 VIDEO OUT 2.3
10 GND
11 VIDEO IN 1.8
12 TUNER Ⓛ 4.9
13 B.B NTSC Ⓗ 0
14 TUNER VIDEO IN 3.9(3.6)
15 TUNER GND
16 TUNER AUDIO IN 0
17 EE Ⓗ 0.1(5.0)
18 AUDIO IN 0
19 RF SEL. I Ⓗ 12.2
20 RF SEL. K Ⓗ 0
21 PAL SP Ⓗ 4.6
22 NTSC SP Ⓗ 0
23 NTSC LP/SLP Ⓗ 0
24 V LOCK VR 0
25 V MUTE Ⓗ 0.1
R3501 75
R3502 75
RF SELECT
SW3501 VSS0224
PAL/SECAM B,G ◄► PAL I ◄► PAL D/SECAM D,K
L3502 100μ
R3525 470
QR3507 MSB709 (AMP)
2.9 2.3
BLUE BACK
SW3502 VSS0225
ON ◄► OFF
V-LOCK(SLP) NTSC
D3505 MA165
VR3503 200KB
V-LOCK(SP) NTSC
D3504 MA165
VR3502 200KB
V-LOCK PAL/SECAM/MESECAM
D3503 MA165
VR3501 200KB

E OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
L. (SP MODE)
E OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
L. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

7
8
9
10

INPUT/OUTPUT PACK C.B.A. (VEP03806B)

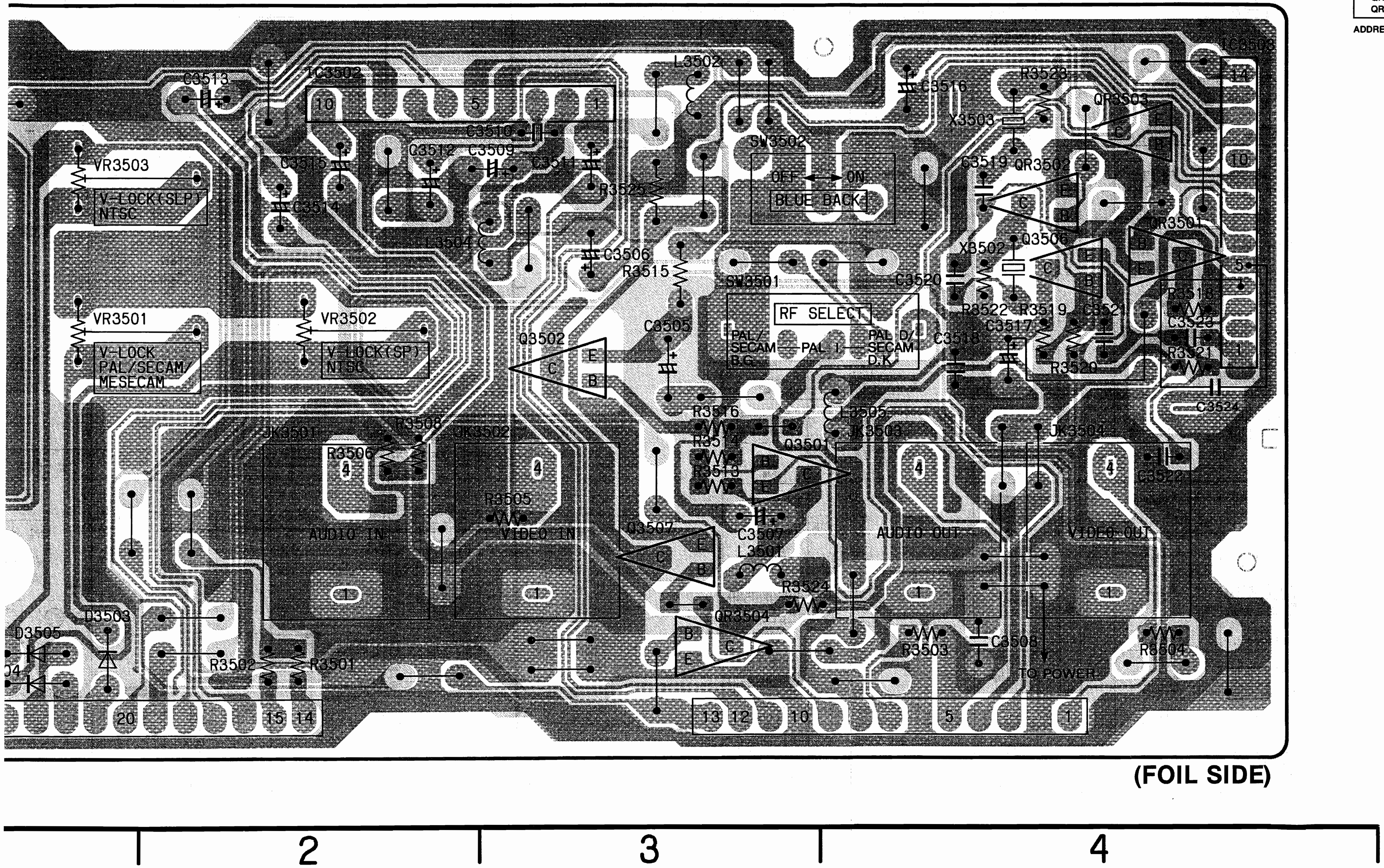


B
A
1
2
3
IC3502
10
5
1
C3513
C3510
C3512
C3509
C3515
C3511
C3514
R3525
L3504
C3506
R3515
VR3503
V-LOCK(SLP)
NTSC
VR3501
V-LOCK
PAL/SECAM/
MESECAM
VR3502
V-LOCK(SP)
NTSC
Q3502
E
C
B
JK3501
JK3502
R3508
R3506
R3505
AUDIO IN
VIDEO IN
4
4
1
1
D3503
D3505
D3504
R3502
R3501
25
20
15
14

·K C.B.A. (VEP03806B)

INPUT/OUTPUT PACK C.B.A.			
Transistor		**Integrated Circuit**	
Q3501	A-3	IC3502	B-2
Q3502	B-3	IC3503	B-4
Q3506	B-4	**Adjustment**	
Q3507	A-3	VR3501	B-1
Transistor & Resistor		VR3502	B-2
QR3501	B-4	VR3503	B-1
QR3502	B-4		
QR3503	B-4		
QR3504	A-3		

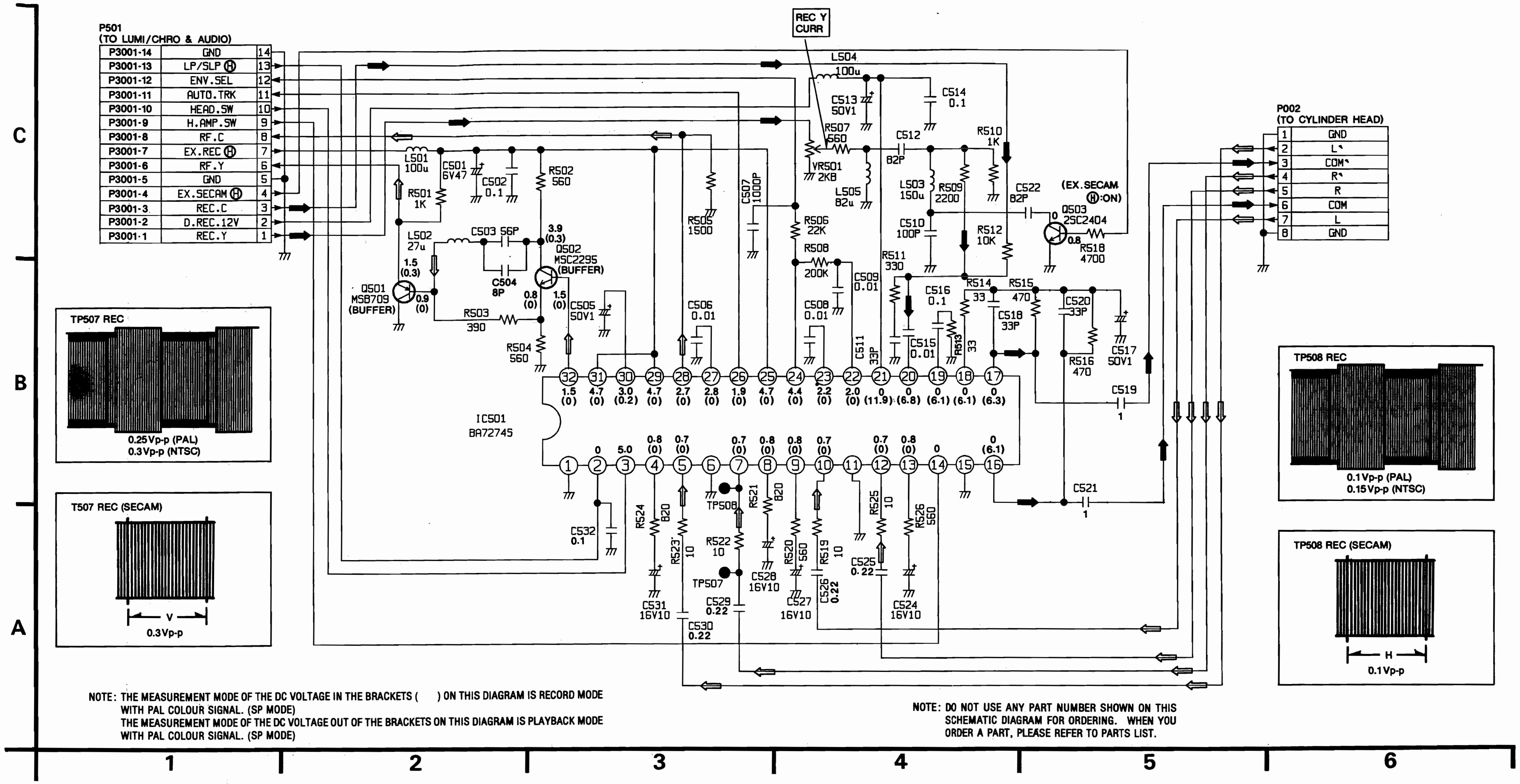
ADDRESS INFORMATION


C3513
IC3502
10
5
1
L3502
C3516
R3523
IC3503
14
QR3503
X3503
C3510
C3512
C3509
C3511
C3515
C3514
SW3502
OFF
ON
BLUE BACK
C3519
QR3502
VR3503
V-LOCK(SLP)
NTSC
R3525
L3504
C3506
R3515
SW3501
X3502
Q3506
QR3501
C3520
RF SELECT
PAL/
SECAM
B.G.
PAL I
PAL D/
SECAM
D.K.
VR3501
V-LOCK
PAL/SECAM/
MESECAM
VR3502
V-LOCK(SP)
NTSC
Q3502
C3505
R3522
R3519
C3521
C3517
C3518
R3518
C3523
R3521
R3520
C3524
R3516
L3505
JK3503
JK3504
JK3501
R3508
JK3502
R3506
R3514
Q3501
R3513
C3522
R3505
AUDIO IN
VIDEO IN
Q3507
C3507
L3501
AUDIO OUT
VIDEO OUT
R3524
QR3504
D3503
D3505
R3502
R3501
R3503
C3508
R3504
TO POWER
20
15
14
13
12
10
5
1
2
3
4

(FOIL SIDE)

HEAD AMP SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE


REC Y CURR
P501 (TO LUMI/CHRO & AUDIO)
P002 (TO CYLINDER HEAD)
L504 100u
C513 50V1
C514 0.1
R507 560
VR501 2KB
L505 82u
C512 82P
R510 1K
L503 150u
R509 2200
C522 82P
(EX.SECAM Ⓗ:ON)
Q503 2SC2404
R512 10K
R518 4700
C510 100P
R511 330
L501 100u
C501 6V47
C502 0.1
R502 560
R501 1K
L502 27u
C503 56P
Q502 MSC2295 (BUFFER)
Q501 MSB709 (BUFFER)
C504 8P
C505 50V1
R503 390
R504 560
R505 1500
C507 1000P
C506 0.01
R506 22K
R508 200K
C508 0.01
C509 0.01
C511 33P
C516 0.1
C515 0.01
R513 33
R514 33
R515 470
C518 33P
C520 33P
R516 470
C517 50V1
C519 1
C521 1
IC501 BA7274S
C532 0.1
R524 820
R523 10
C531 16V10
C530 0.22
TP508
R521 820
R522 10
TP507
C528 16V10
C529 0.22
R520 560
R519 10
C527 16V10
C526 0.22
R525 10
C525 0.22
R526 560
C524 16V10
TP507 REC
0.25Vp-p (PAL)
0.3Vp-p (NTSC)
T507 REC (SECAM)
V
0.3Vp-p
TP508 REC
0.1Vp-p (PAL)
0.15Vp-p (NTSC)
TP508 REC (SECAM)
H
0.1Vp-p
C
B
A
1
2
3
4
5
6

P501 (TO LUMI/CHRO & AUDIO)

P3001-14	GND	14
P3001-13	LP/SLP Ⓗ	13
P3001-12	ENV.SEL	12
P3001-11	AUTO.TRK	11
P3001-10	HEAD.SW	10
P3001-9	H.AMP.SW	9
P3001-8	RF.C	8
P3001-7	EX.REC Ⓗ	7
P3001-6	RF.Y	6
P3001-5	GND	5
P3001-4	EX.SECAM Ⓗ	4
P3001-3	REC.C	3
P3001-2	D.REC.12V	2
P3001-1	REC.Y	1

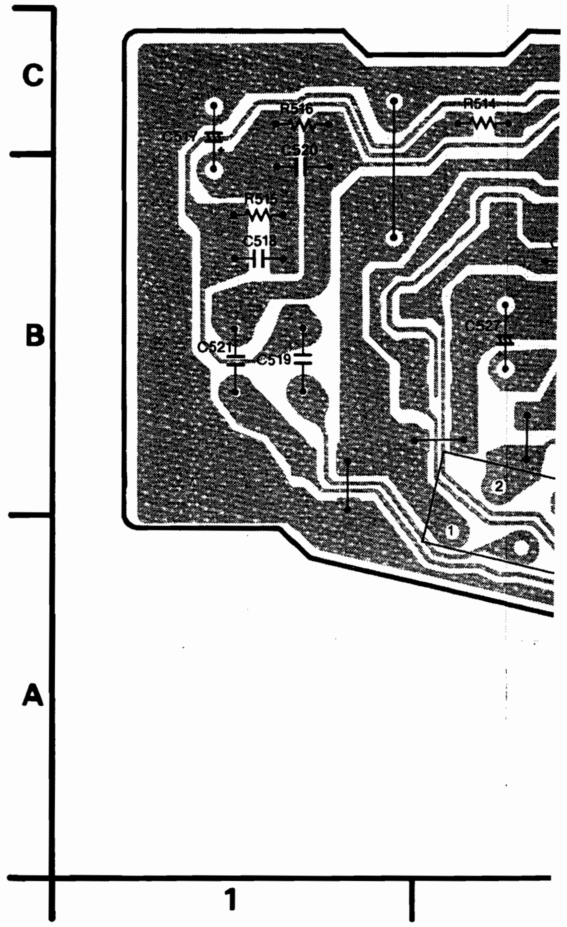
P002 (TO CYLINDER HEAD)

1	GND
2	L*
3	COM*
4	R*
5	R
6	COM
7	L
8	GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

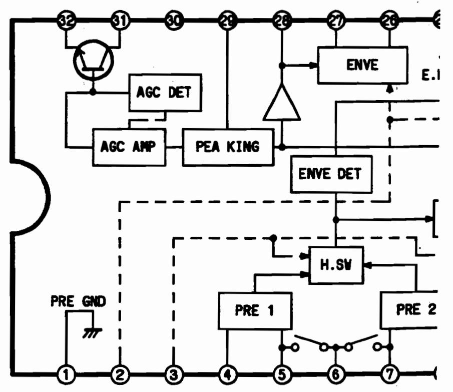
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

HEAD AMP C.B.A. (VEP051


C
B
A
1
R514
R516
R515
C518
C521
C519
1
2

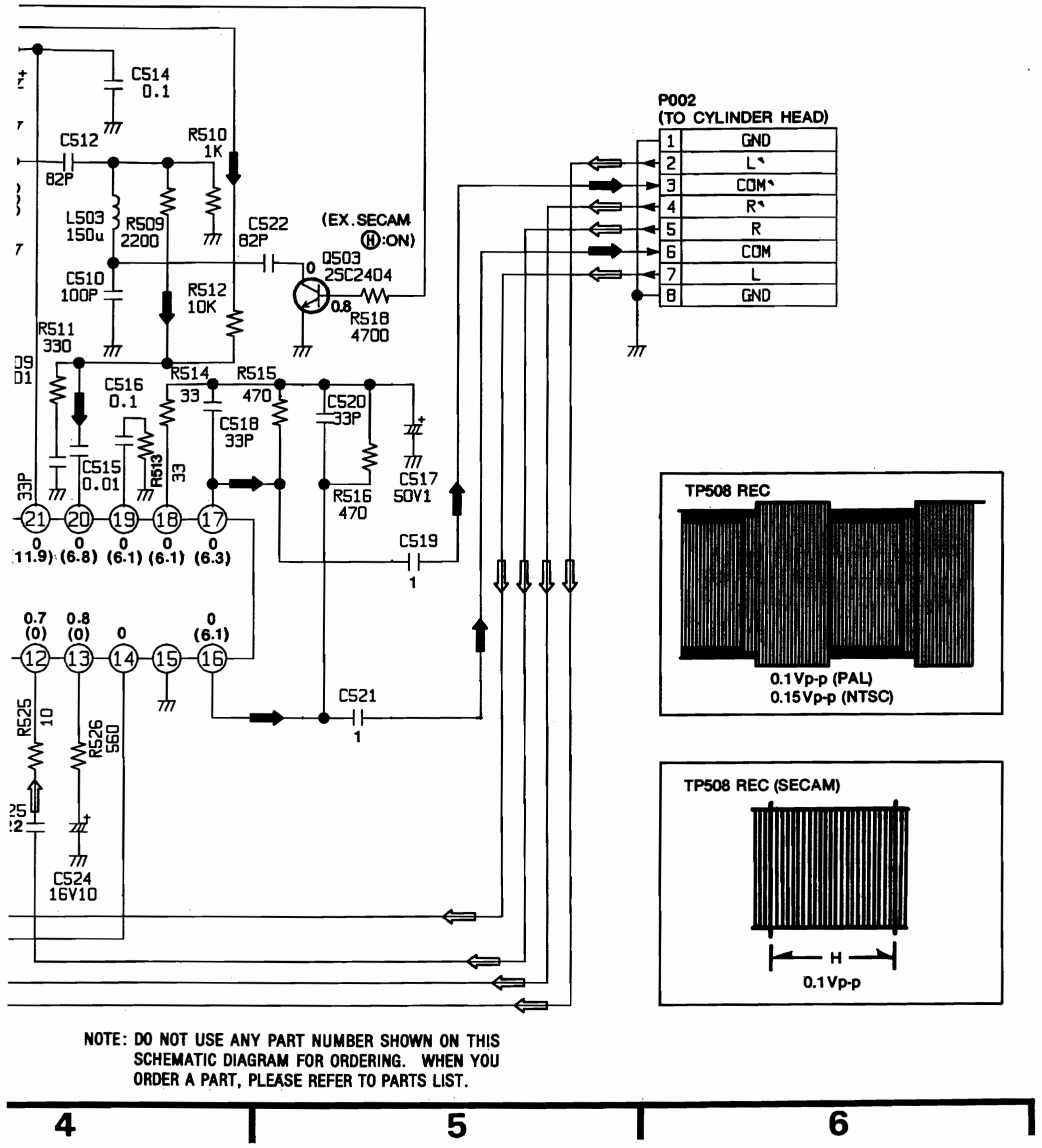
IC BLOCK

IC501 (BA7274S)

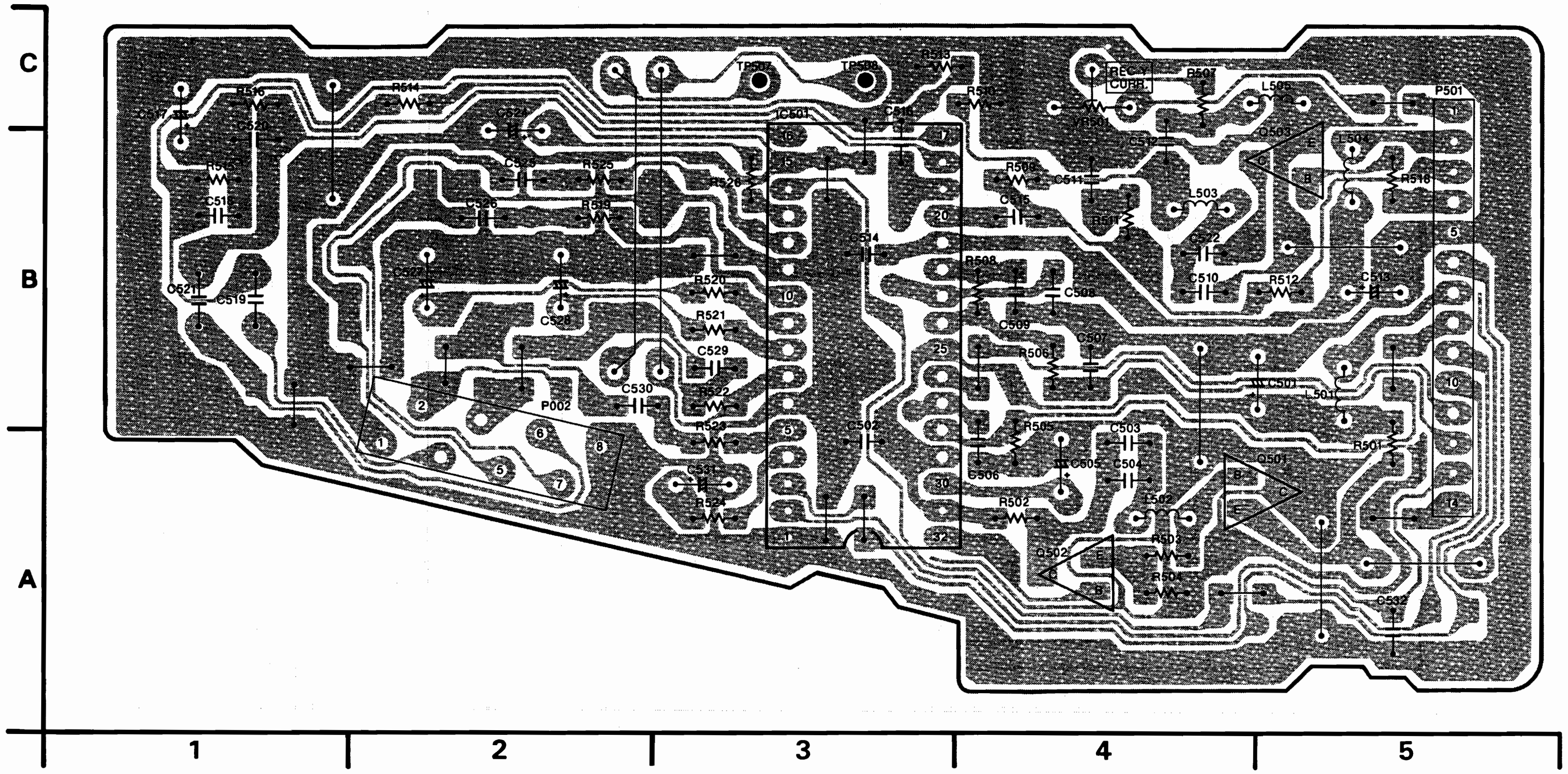

AGC DET
AGC AMP
PEA KING
ENVE
ENVE DET
H.SW
PRE 1
PRE 2
PRE GND
E.

H IN REC MODE
H IN PLAYBACK MODE

HEAD AMP C.B.A. (VEP05160B)

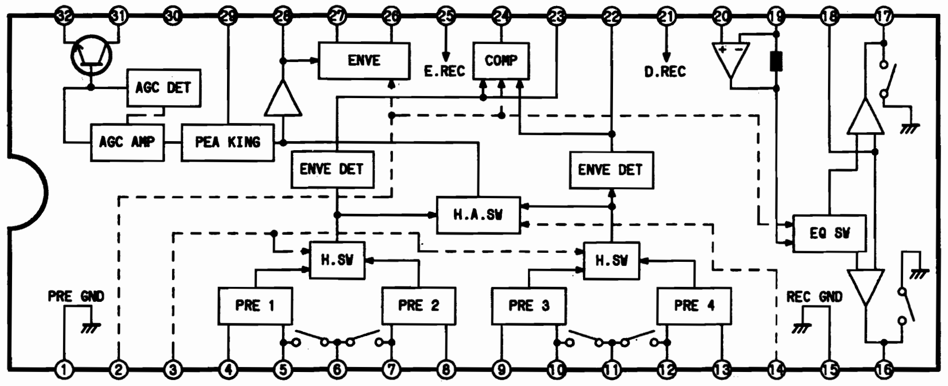

C514 0.1
C512 82P
R510 1K
L503 150u
R509 2200
C522 82P
(EX.SECAM H:ON)
Q503 2SC2404
R518 4700
C510 100P
R512 10K
R511 330
R514 33
R515 470
C516 0.1
C518 33P
C520 33P
C515 0.01
R513
C517 50V1
R516 470
C519 1
C521 1
R525 10
R526 560
C524 16V10
P002 (TO CYLINDER HEAD)
1 GND
2 L*
3 COM*
4 R*
5 R
6 COM
7 L
8 GND
TP508 REC
0.1Vp-p (PAL)
0.15Vp-p (NTSC)
TP508 REC (SECAM)
H
0.1Vp-p
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C
B
A
1
2
3
4
5
IC501
P002
P501
TP507
TP508
VR501
Q501
Q502
L503
L504

IC BLOCK

IC501 (BA7274S)

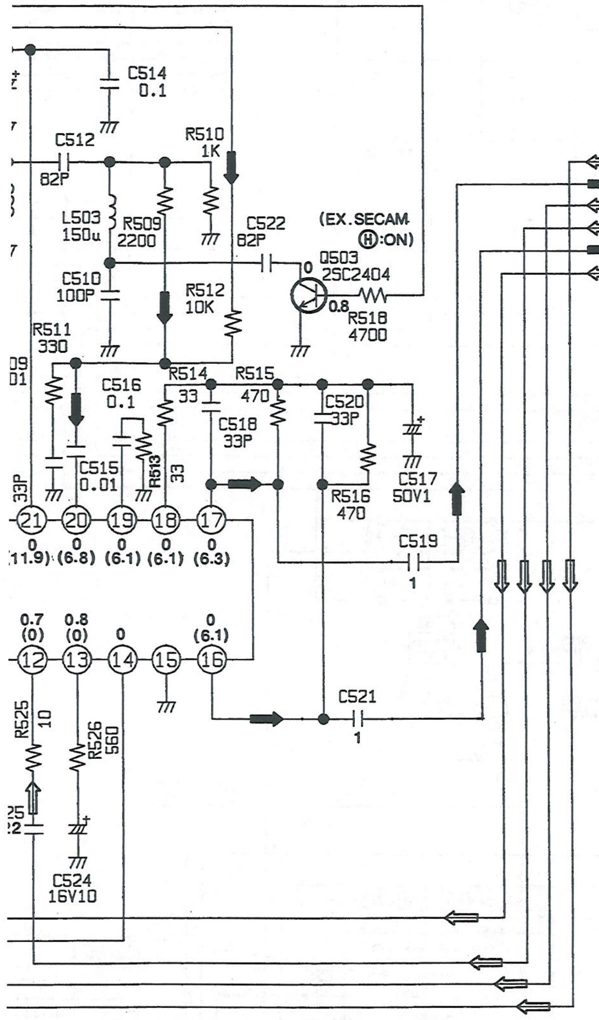

AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
D.REC
ENVE DET
ENVE DET
H.A.SW
H.SW
H.SW
EQ SW
PRE GND
REC GND
PRE 1
PRE 2
PRE 3
PRE 4

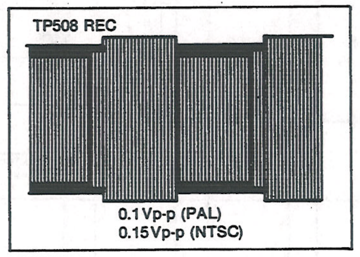
HEAD AMP C.B.A.			
Transistor		**Adjustment**	
Q501 Q502 Q503	A-5 A-4 B-5	VR501	C-4
Integrated Circuit		**Connector**	
IC501	C-3	P002 P501	B-2 C-5
Test Point			
TP507 TP508	C-3 C-3		

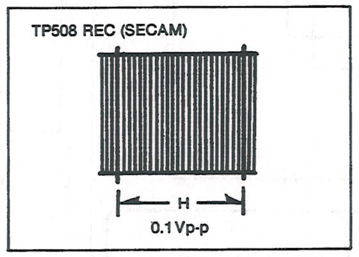
ADDRESS INFORMATION

H IN REC MODE
H IN PLAYBACK MODE

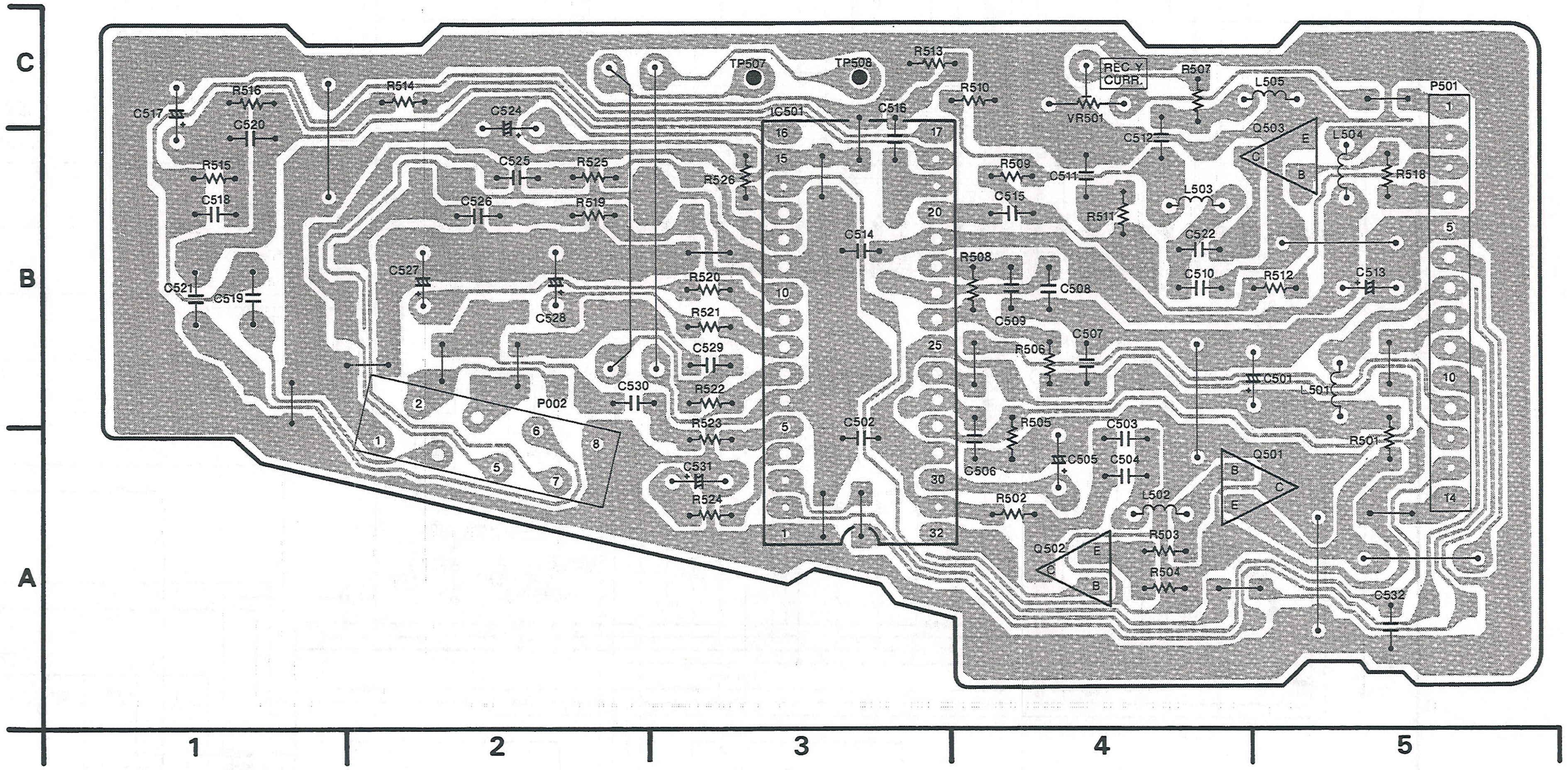
HEAD AMP C.B.A. (VEP05160B)


C514 0.1
C512 82P
R510 1K
L503 150u
R509 2200
C522 82P
(EX.SECAM H:ON)
Q503 2SC2404
0.8
R518 4700
C510 100P
R512 10K
R511 330
C516 0.1
R514 33
R515 470
C520 33P
C518 33P
C515 0.01
R513 33
R516 470
C517 50V1
C519 1
C521 1
P002 (TO CYLINDER HEAD)
1 GND
2 L*
3 COM*
4 R*
5 R
6 COM
7 L
8 GND
21 20 19 18 17
(11.9) (6.8) (6.1) (6.1) (6.3)
12 13 14 15 16
0.7 (0) 0.8 (0) 0 0 (6.1)
R525 10
R526 560
C524 16V10
4
5
6



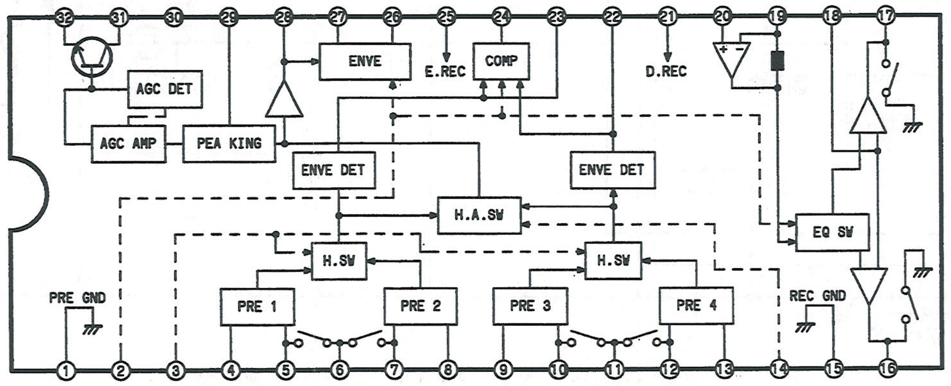


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C
B
A
1
2
3
4
5
TP507
TP508
IC501
P501
P002
VR501
REC Y CURR.
Q501
Q502
Q503
L501
L502
L503
L504
L505
R501
R502
R503
R504
R505
R506
R507
R508
R509
R510
R511
R512
R513
R514
R515
R516
R518
R519
R520
R521
R522
R523
R524
R525
R526
C501
C502
C503
C504
C505
C506
C507
C508
C509
C510
C511
C512
C513
C514
C515
C516
C517
C518
C519
C520
C521
C522
C524
C525
C526
C527
C528
C529
C530
C531
C532

IC BLOCK

IC501 (BA7274S)

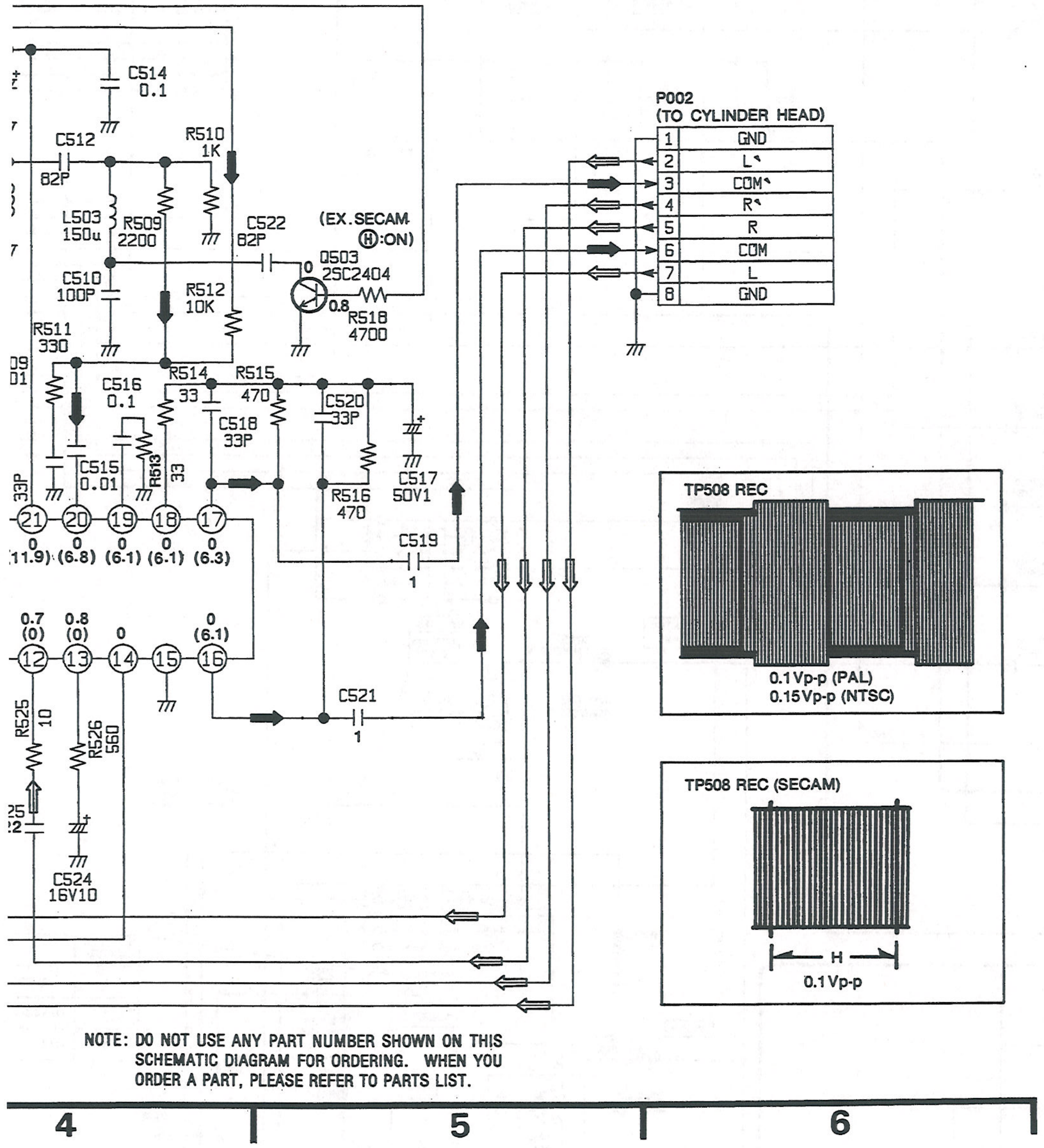

32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
D.REC
ENVE DET
ENVE DET
H.A.SW
EQ SW
H.SW
H.SW
PRE GND
PRE 1
PRE 2
PRE 3
PRE 4
REC GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

HEAD AMP C.B.A.			
Transistor		Adjustment	
Q501 Q502 Q503	A-5 A-4 B-5	VR501	C-4
		Connector	
Integrated Circuit		P002 P501	B-2 C-5
IC501	C-3		
Test Point			
TP507 TP508	C-3 C-3		

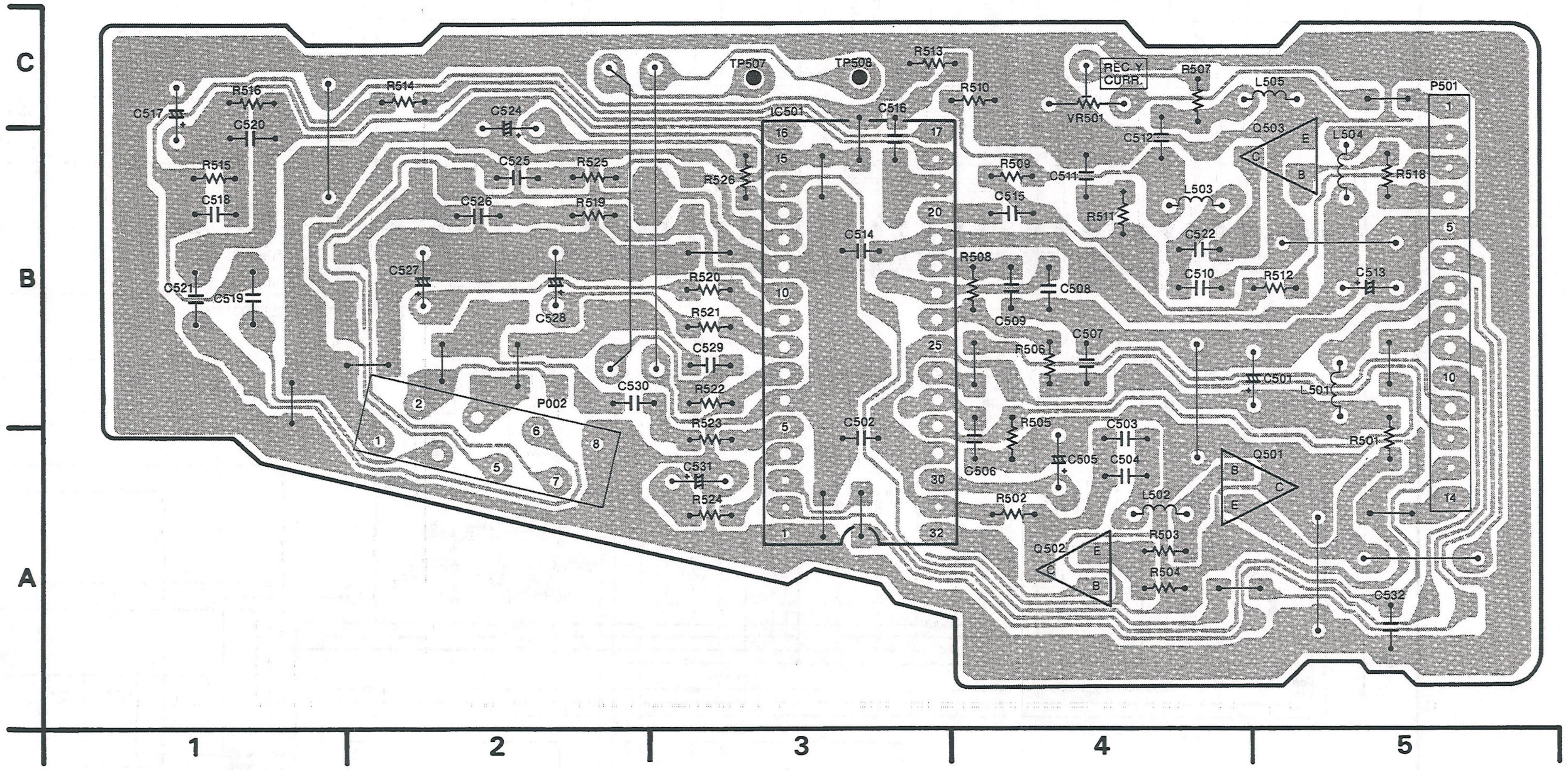
ADDRESS INFORMATION

H IN REC MODE
H IN PLAYBACK MODE

HEAD AMP C.B.A. (VEP05160B)

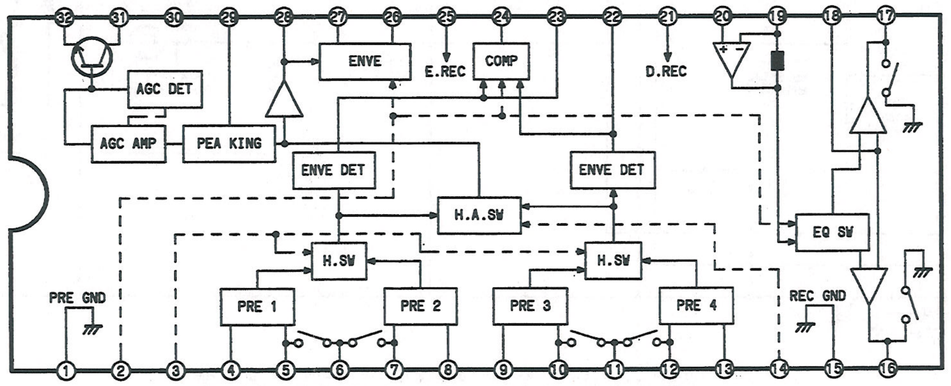

C514
0.1
C512
82P
R510
1K
L503
150u
R509
2200
C522
82P
(EX.SECAM
H:ON)
Q503
2SC2404
0.8
R518
4700
C510
100P
R512
10K
R511
330
R514
33
R515
470
C516
0.1
C518
33P
C520
33P
C515
0.01
R513
33
R516
470
C517
50V1
C519
1
C521
1
33P
21 20 19 18 17
(11.9) (6.8) (6.1) (6.1) (6.3)
0.7 (0) 0.8 (0) 0 0 (6.1)
12 13 14 15 16
R525
10
R526
560
C524
16V10
P002
(TO CYLINDER HEAD)
1 GND
2 L*
3 COM*
4 R*
5 R
6 COM
7 L
8 GND
TP508 REC
0.1Vp-p (PAL)
0.15Vp-p (NTSC)
TP508 REC (SECAM)
H
0.1Vp-p
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C
B
A
1
2
3
4
5
TP507
TP508
IC501
P501
P002
Q501
Q502
Q503
VR501
REC Y CURR.
L501
L502
L503
L504
L505
R501
R502
R503
R504
R505
R506
R507
R508
R509
R510
R511
R512
R513
R514
R515
R516
R518
R519
R520
R521
R522
R523
R524
R525
R526
C501
C502
C503
C504
C505
C506
C507
C508
C509
C510
C511
C512
C513
C514
C515
C516
C517
C518
C519
C520
C521
C522
C524
C525
C526
C527
C528
C529
C530
C531
C532

IC BLOCK

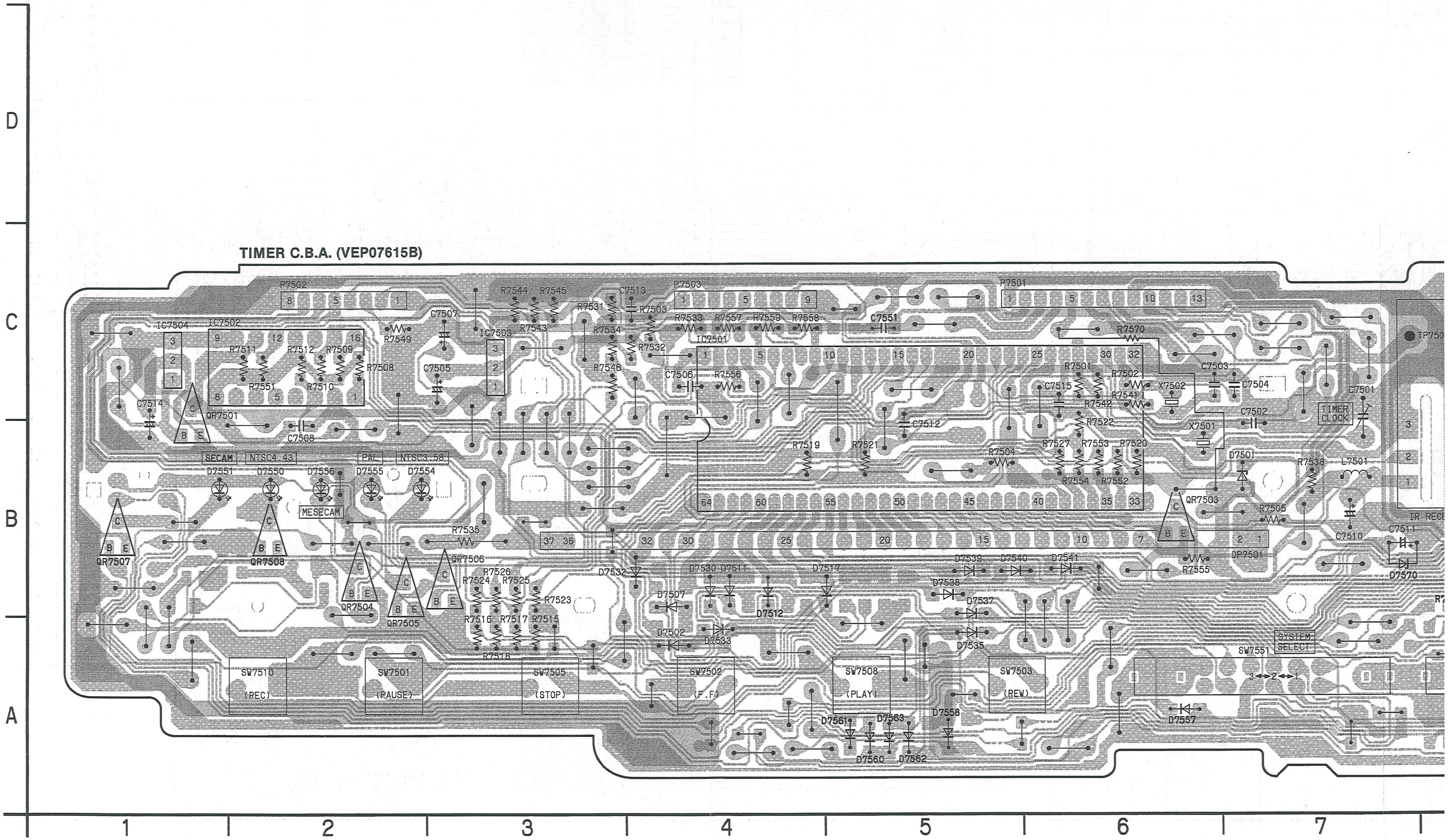
IC501 (BA7274S)


AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
D.REC
ENVE DET
ENVE DET
H.A.SW
H.SW
H.SW
EQ SW
PRE 1
PRE 2
PRE 3
PRE 4
PRE GND
REC GND
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

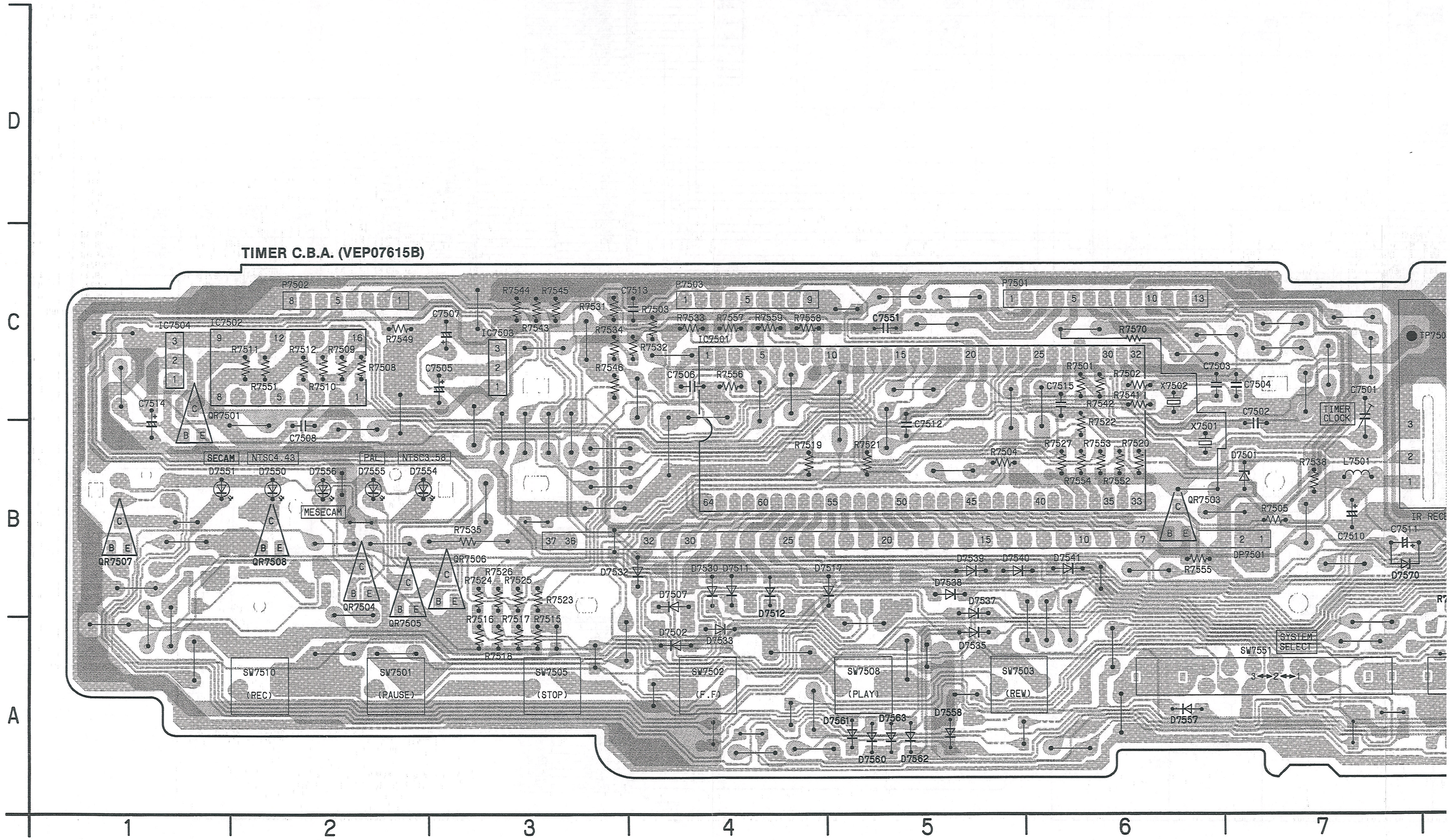
HEAD AMP C.B.A.			
Transistor		Adjustment	
Q501	A-5	VR501	C-4
Q502	A-4	Connector	
Q503	B-5	P002	B-2
Integrated Circuit		P501	C-5
IC501	C-3		
Test Point			
TP507	C-3		
TP508	C-3		

ADDRESS INFORMATION

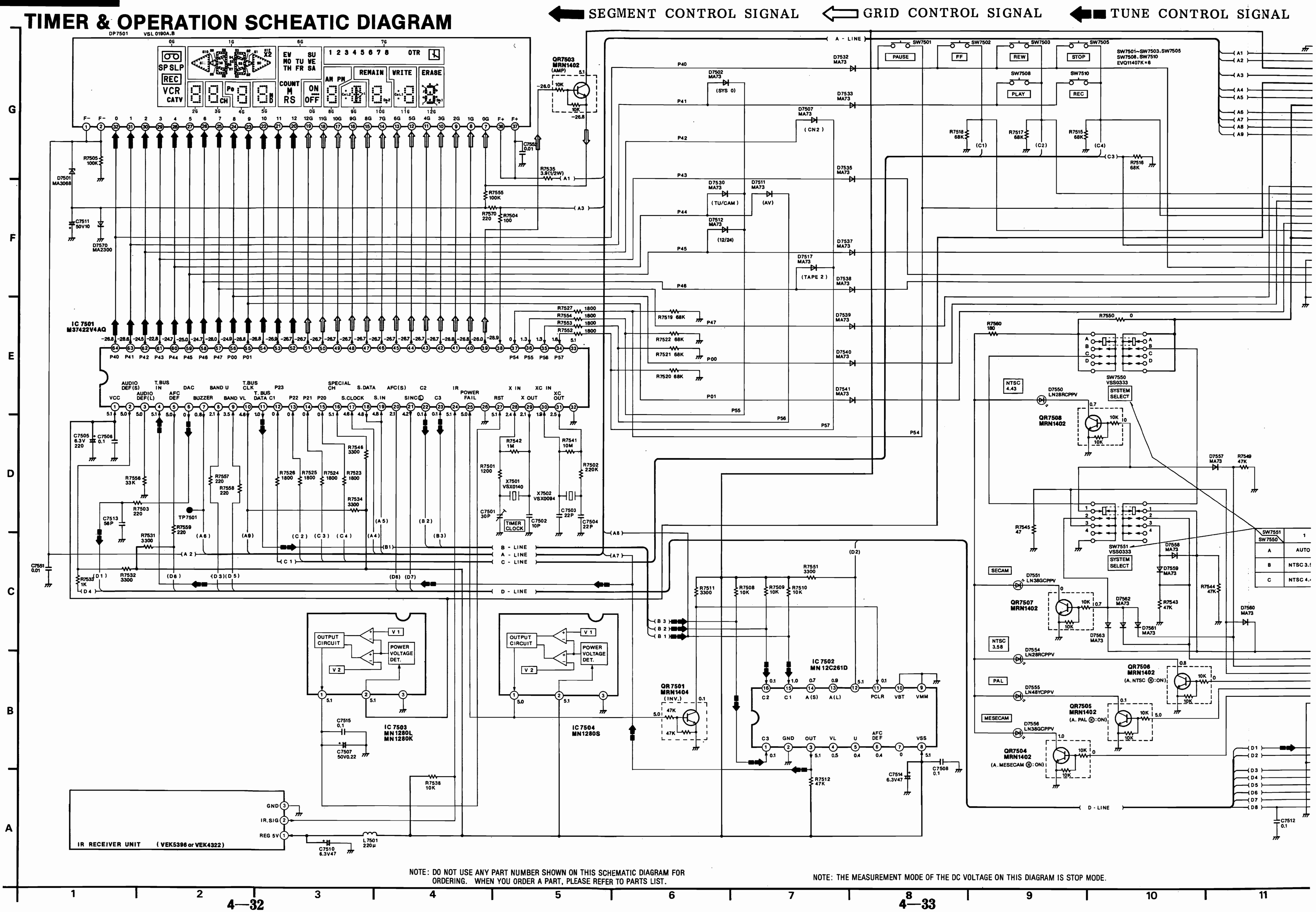
TIMER C.B.A. (VEP07615B) & OPERATION C.B.A. (VEP06726A)


D
C
B
A
1
2
3
4
5
6
7
TIMER C.B.A. (VEP07615B)
P7502
8
5
1
IC7504
IC7502
9
12
16
R7511
R7512
R7509
R7508
R7551
R7510
8
5
1
C7514
QR7501
C7508
R7549
C7507
C7505
IC7503
R7544
R7545
R7543
R7531
C7513
R7503
R7534
R7532
R7546
P7503
1
5
9
R7533
R7557
R7559
R7558
IC7501
C7506
R7556
C7551
P7501
1
5
10
13
R7570
R7501
R7502
X7502
C7503
C7504
C7515
R7542
R7541
C7512
R7522
C7502
X7501
C7501
TIMER CLOCK
TP750
R7519
R7521
R7504
R7527
R7553
R7520
R7554
R7552
D7501
R7538
L7501
3
2
1
64
60
55
50
45
40
35
33
10
15
20
25
30
32
QR7503
R7505
C7510
C7511
IR RECE
SECAM
NTSC4.43
PAL
NTSC3.58
D7551
D7550
D7556
D7555
D7554
MESECAM
QR7507
QR7508
R7535
QR7506
QR7504
QR7505
R7524
R7526
R7525
R7523
R7516
R7517
R7515
R7518
37
36
32
30
25
20
15
10
7
2
1
DP7501
D7532
D7530
D7511
D7517
D7507
D7512
D7502
D7533
D7539
D7540
D7541
D7538
D7537
D7535
R7555
D7570
SW7510
(REC)
SW7501
(PAUSE)
SW7505
(STOP)
SW7502
(F.F)
SW7508
(PLAY)
SW7503
(REW)
SYSTEM SELECT
SW7551
3◄►2◄►1
D7561
D7563
D7560
D7562
D7558
D7557

TIMER C.B.A. (VEP07615B) & OPERATION C.B.A. (VEP06726A)

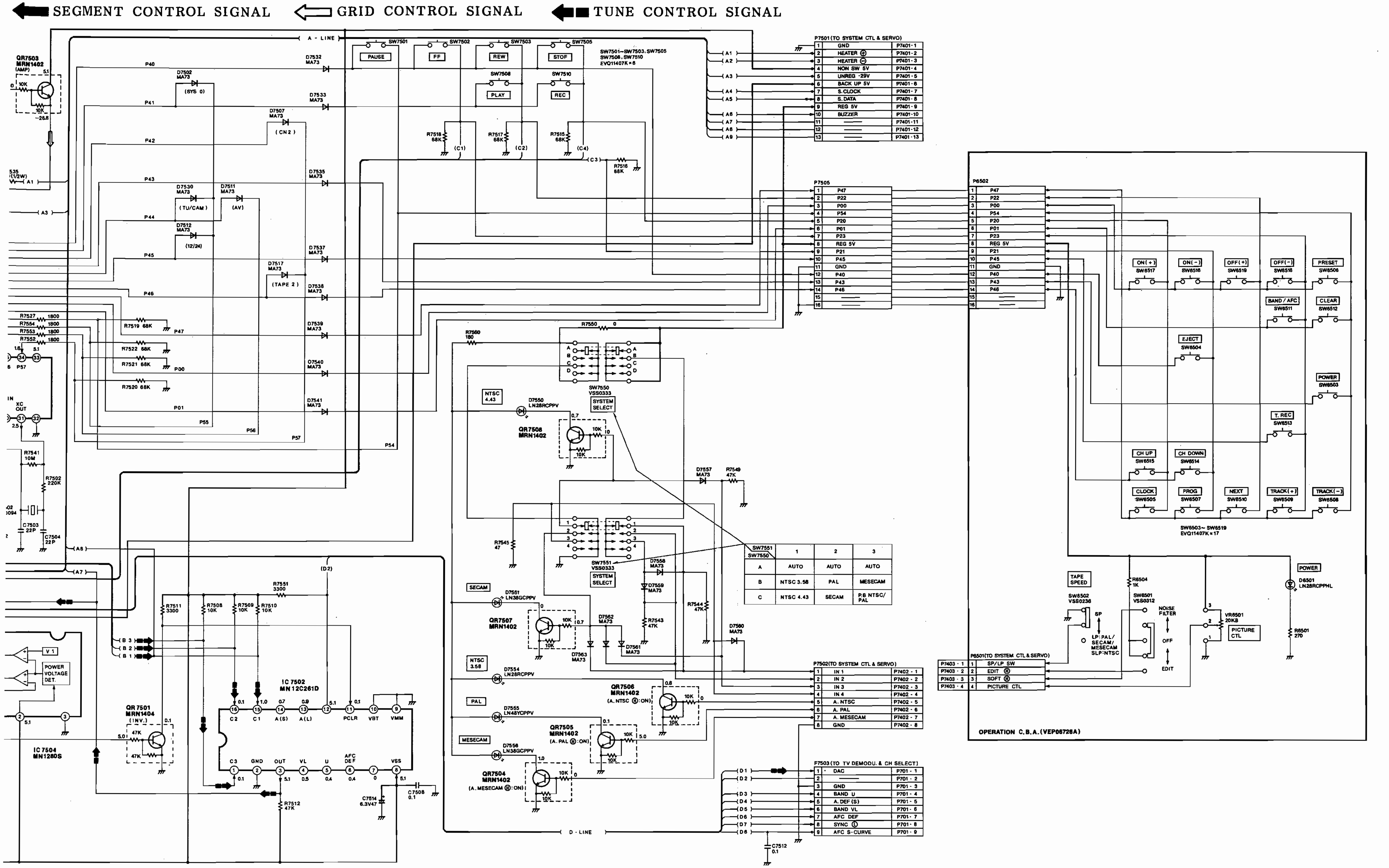

D
C
B
A
1
2
3
4
5
6
7
TIMER C.B.A. (VEP07615B)
P7502
P7503
P7501
IC7504
IC7502
IC7503
IC7501
R7511
R7512
R7509
R7508
R7551
R7510
R7549
C7507
C7505
C7514
C7508
QR7501
R7544
R7545
R7543
R7531
R7534
R7546
C7513
R7503
R7532
R7533
R7557
R7559
R7558
C7551
R7570
C7506
R7556
R7501
R7502
C7515
R7542
R7541
X7502
C7503
C7504
C7502
X7501
C7501
TIMER CLOCK
C7512
R7522
R7519
R7521
R7504
R7527
R7553
R7520
R7554
R7552
D7501
R7538
L7501
TP750
SECAM
NTSC4.43
PAL
NTSC3.58
D7551
D7550
D7556
D7555
D7554
MESECAM
QR7507
QR7508
QR7504
QR7505
QR7506
R7535
R7524
R7526
R7525
R7523
R7516
R7517
R7515
R7518
QR7503
R7505
C7510
C7511
IR REC
DP7501
R7555
D7570
D7532
D7530
D7511
D7517
D7507
D7512
D7502
D7533
D7539
D7540
D7541
D7538
D7537
D7536
D7535
SW7510
(REC)
SW7501
(PAUSE)
SW7505
(STOP)
SW7502
(F.F)
SW7508
(PLAY)
SW7503
(REW)
SW7551
SYSTEM SELECT
3↔2↔1
D7561
D7563
D7560
D7562
D7558
D7557

TIMER & OPERATION SCHEATIC DIAGRAM


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
DP7501 VSL 0190A.B
SP SLP
REC
VCR
CATV
COUNT
M
RS
ON
OFF
AM PM
REMAIN
WRITE
ERASE
OTR
EV SU
MO TU WE
TH FR SA
QR7503 MRN1402 (AMP)
IC 7501 M37422V4AQ
AUDIO DEF(S)
AUDIO DEF(L)
T.BUS IN
AFC DEF
DAC
BUZZER
BAND U
BAND VL
T.BUS CLK
T.BUS DATA C1
P23
P22
P21
P20
SPECIAL CH
S.CLOCK
S.DATA
S.IN
AFC(S)
SINC
C2
C3
IR
POWER FAIL
RST
X IN
X OUT
XC IN
XC OUT
VCC
X7501 VSX0140
X7502 VSX0094
TIMER CLOCK
TP7501
A - LINE
B - LINE
C - LINE
D - LINE
SW7501 PAUSE
SW7502 FF
SW7503 REW
SW7505 STOP
SW7508 PLAY
SW7510 REC
SW7501~SW7503, SW7505
SW7508, SW7510
EVQ11407K×6
D7502 MA73 (SYS 0)
D7507 MA73 (CN2)
D7530 MA73 (TU/CAM)
D7511 MA73 (AV)
D7512 MA73 (12/24)
D7517 MA73 (TAPE 2)
SW7550 VSS0333 SYSTEM SELECT
SW7551 VSS0333 SYSTEM SELECT
NTSC 4.43
NTSC 3.58
SECAM
PAL
MESECAM
D7550 LN28RCPPV
D7551 LN38GCPPV
D7554 LN28RCPPV
D7555 LN48YCPPV
D7556 LN38GCPPV
QR7508 MRN1402
QR7507 MRN1402
QR7506 MRN1402 (A. NTSC ON)
QR7505 MRN1402 (A. PAL ON)
QR7504 MRN1402 (A. MESECAM ON)
SW7551 / SW7550
A AUTO
B NTSC 3.
C NTSC 4.
IC 7503 MN1280L MN1280K
IC 7504 MN1280S
OUTPUT CIRCUIT
POWER VOLTAGE DET.
V1
V2
QR7501 MRN1404 (INV.)
IC 7502 MN 12C261D
C2 C1 A(S) A(L) PCLR VBT VMM
C3 GND OUT VL U AFC DEF VSS
IR RECEIVER UNIT (VEK5396 or VEK4322)
GND
IR.SIG
REG 5V
L7501 220μ
C7510 6.3V47
A B C D F G
1 2 3 4 5 6 7 8 9 10 11

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
A - LINE
D - LINE
QR7503 MRN1402 (AMP)
SW7501
SW7502
SW7503
SW7505
PAUSE
FF
REW
STOP
SW7508
SW7510
PLAY
REC
SW7501~SW7503, SW7505 SW7508, SW7510 EVQ11407K × 6
R7518 68K
R7517 68K
R7515 68K
R7516 68K
(C1)
(C2)
(C3)
(C4)
D7532 MA73
D7502 MA73 (SYS 0)
D7533 MA73
D7507 MA73 (CN2)
D7535 MA73
D7530 MA73 (TU/CAM)
D7511 MA73 (AV)
D7512 MA73 (12/24)
D7537 MA73
D7517 MA73 (TAPE 2)
D7538 MA73
D7539 MA73
D7540 MA73
D7541 MA73
P40
P41
P42
P43
P44
P45
P46
P47
P00
P01
P54
P55
P56
P57
R7527 1800
R7554 1800
R7553 1800
R7552 1800
R7519 68K
R7522 68K
R7521 68K
R7520 68K
XC OUT
R7541 10M
R7502 220K
C7503 22P
C7504 22P
IC 7504 MN1280S
POWER VOLTAGE DET.
QR 7501 MRN1404 (INV.)
R7511 3300
R7508 10K
R7509 10K
R7510 10K
R7551 3300
IC 7502 MN12C261D
C2
C1
A(S)
A(L)
PCLR
VBT
VMM
C3
GND
OUT
VL
U
AFC DEF
VSS
R7512 47K
C7514 6.3V47
C7508 0.1
R7560 180
R7550 0
SW7550 VSS0333
SYSTEM SELECT
NTSC 4.43
D7550 LN28RCPPV
QR7508 MRN1402
D7557 MA73
R7549 47K
R7545 47
SW7551 VSS0333
SYSTEM SELECT
D7558 MA73
D7559 MA73
R7544 47K
R7543 47K
D7560 MA73
SECAM
D7551 LN38GCPPV
QR7507 MRN1402
D7562 MA73
D7563 MA73
D7561 MA73
NTSC 3.58
D7554 LN28RCPPV
QR7506 MRN1402 (A. NTSC Ⓗ:ON)
PAL
D7555 LN48YCPPV
QR7505 MRN1402 (A. PAL Ⓗ:ON)
MESECAM
D7556 LN38GCPPV
QR7504 MRN1402 (A. MESECAM Ⓗ:ON)
C7512 0.1
P7501 (TO SYSTEM CTL & SERVO)
1 GND P7401-1
2 HEATER ⊕ P7401-2
3 HEATER ⊖ P7401-3
4 NON SW 5V P7401-4
5 UNREG -29V P7401-5
6 BACK UP 5V P7401-6
7 S.CLOCK P7401-7
8 S.DATA P7401-8
9 REG 5V P7401-9
10 BUZZER P7401-10
11 P7401-11
12 P7401-12
13 P7401-13
P7505
P6502
1 P47
2 P22
3 P00
4 P54
5 P20
6 P01
7 P23
8 REG 5V
9 P21
10 P45
11 GND
12 P40
13 P43
14 P46
P7502 (TO SYSTEM CTL & SERVO)
1 IN 1 P7402-1
2 IN 2 P7402-2
3 IN 3 P7402-3
4 IN 4 P7402-4
5 A. NTSC P7402-5
6 A. PAL P7402-6
7 A. MESECAM P7402-7
8 GND P7402-8
F7503 (TO TV DEMODU. & CH SELECT)
1 DAC P701-1
2 P701-2
3 GND P701-3
4 BAND U P701-4
5 A. DEF (S) P701-5
6 BAND VL P701-6
7 AFC DEF P701-7
8 SYNC Ⓛ P701-8
9 AFC S-CURVE P701-9
P6501 (TO SYSTEM CTL & SERVO)
P7403-1 1 SP/LP SW
P7403-2 2 EDIT Ⓗ
P7403-3 3 SOFT Ⓗ
P7403-4 4 PICTURE CTL
ON(+) SW6517
ON(-) SW6516
OFF(+) SW6519
OFF(-) SW6518
PRESET SW6506
BAND / AFC SW6511
CLEAR SW6512
EJECT SW6504
POWER SW6503
T. REC SW6513
CH UP SW6515
CH DOWN SW6514
CLOCK SW6505
PROG SW6507
NEXT SW6510
TRACK(+) SW6509
TRACK(-) SW6508
SW6503~SW6519 EVQ11407K × 17
TAPE SPEED
SW6502 VSS0236
SP
LP: PAL/ SECAM/ MESECAM
SLP: NTSC
R6504 1K
SW6501 VSS0312
NOISE FILTER
OFF
EDIT
VR6501 20KB
PICTURE CTL
POWER
D6501 LN28RCPPHL
R6501 270
OPERATION C.B.A. (VEP06726A)

SW7551 / SW7550	1	2	3
A	AUTO	AUTO	AUTO
B	NTSC 3.58	PAL	MESECAM
C	NTSC 4.43	SECAM	P.B NTSC/ PAL

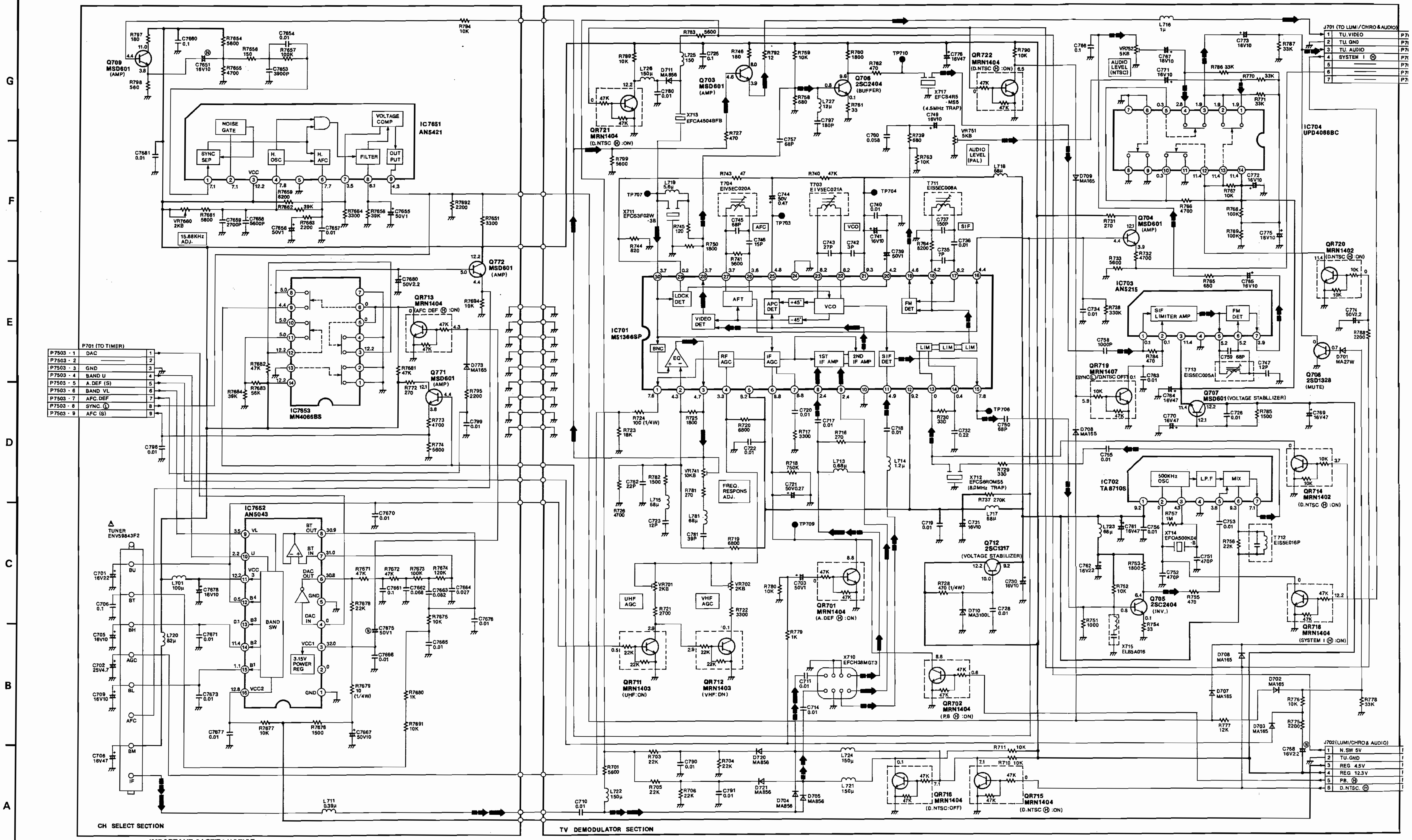
SHOWN ON THIS SCHEMATIC DIAGRAM FOR
PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

TV DEMODULATOR & CH SELECT SCHEMATIC DIAGRAM

VIDEO SIGNAL PATH

AUDIO SIGNAL PATH

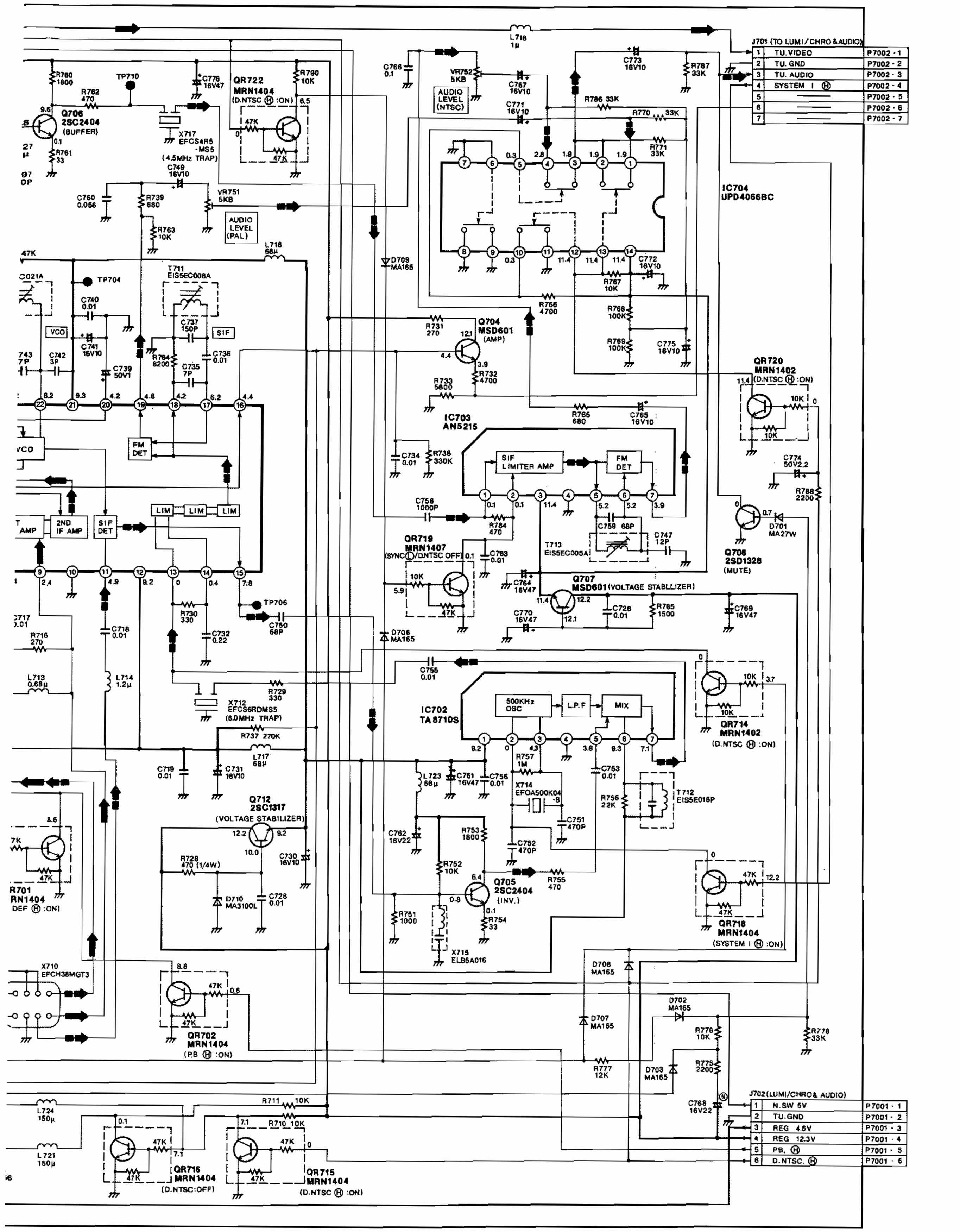

CH SELECT SECTION
TV DEMODULATOR SECTION
IC7651 AN5421
NOISE GATE
SYNC SEP
H. OSC
H. AFC
VOLTAGE COMP
FILTER
OUT PUT
15.68KHz ADJ.
Q709 MSD601 (AMP)
Q772 MSD601 (AMP)
QR713 MRN1404 AFC DEF Ⓗ :ON
Q771 MSD601 (AMP)
IC7653 MN4066BS
P701 (TO TIMER)
P7503 - 1 DAC
P7503 - 2
P7503 - 3 GND
P7503 - 4 BAND U
P7503 - 5 A.DEF (S)
P7503 - 6 BAND VL
P7503 - 7 AFC.DEF
P7503 - 8 SYNC. Ⓓ
P7503 - 9 AFC (S)
IC7652 AN5043
BAND SW
DAC OUT
DAC IN
BT OUT
BT IN
3.15V POWER REG
TUNER ENV59843F2
BU BT BH AGC BL AFC BM IF
IC701 M51366SP
LOCK DET
VIDEO DET
AFT
APC DET
VCO
FM DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
Q721 MRN1404 (D.NTSC Ⓗ :ON)
Q703 MSD601 (AMP)
Q706 2SC2404 (BUFFER)
QR722 MRN1404 (D.NTSC Ⓗ :ON)
X713 EFCA4504BFB
X711 EFCS3F02W
T704 EIV5EC020A
T703 EIV5EC021A
T711 EIS5EC008A
X717 EFCS4R5 -MS5 (4.5MHz TRAP)
AUDIO LEVEL (PAL)
AUDIO LEVEL (NTSC)
VR741 10KB
FREQ. RESPONS ADJ.
X712 EFCS6R0MS5 (6.0MHz TRAP)
Q712 2SC1317 (VOLTAGE STABILIZER)
UHF AGC
VHF AGC
QR711 MRN1403 (UHF:ON)
QR712 MRN1403 (VHF:ON)
QR701 MRN1404 (A.DEF Ⓗ :ON)
QR702 MRN1404 (PB Ⓗ :ON)
X710 EFCH38MGT3
QR716 MRN1404 (D.NTSC:OFF)
QR715 MRN1404 (D.NTSC Ⓗ :ON)
IC704 UPD4066BC
J701 (TO LUMI/CHRO & AUDIO)
1 TU.VIDEO
2 TU.GND
3 TU. AUDIO
4 SYSTEM I Ⓗ
Q704 MSD601 (AMP)
QR720 MRN1402 (D.NTSC Ⓗ :ON)
IC703 AN5215
SIF LIMITER AMP
FM DET
QR719 MRN1407 (SYNC Ⓓ/DNTSC OFF)
T713 EIS5EC005A
Q707 MSD601 (VOLTAGE STABILIZER)
Q708 2SD1328 (MUTE)
IC702 TA8710S
500KHz OSC
L.P.F
MIX
QR714 MRN1402 (D.NTSC Ⓗ :ON)
X714 EFOA500K04B
T712 EIS5E016P
Q705 2SC2404 (INV.)
X715 ELB5A016
QR718 MRN1404 (SYSTEM I Ⓗ :ON)
J702 (LUMI/CHRO & AUDIO)
1 N.SW 5V
2 TU.GND
3 REG 4.5V
4 REG 12.3V
5 PB. Ⓗ
6 D.NTSC. Ⓗ
A B C D E F G
1 2 3 4 5 6 7 8 9 10 11

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

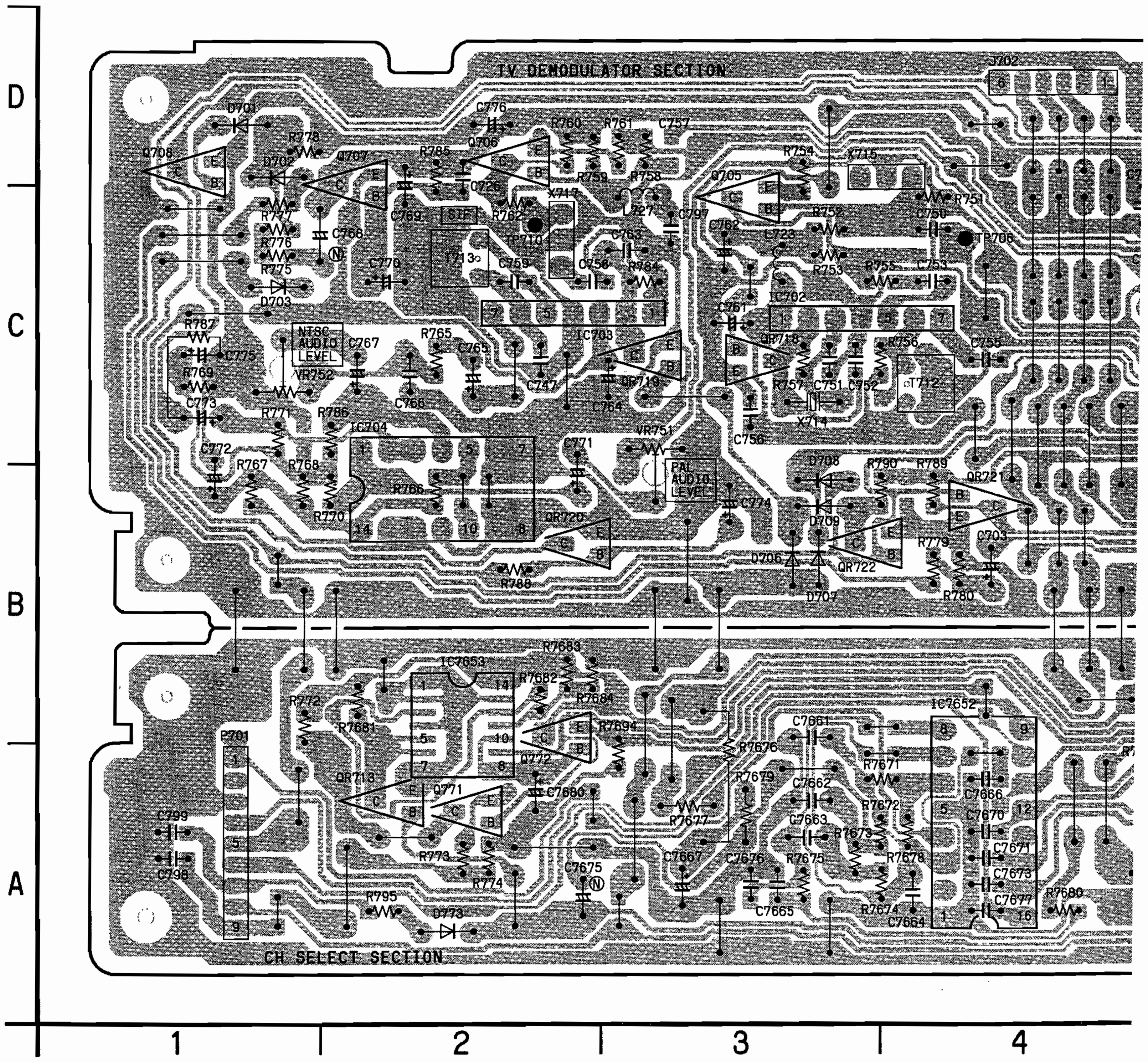
L PATH ◀■ AUDIO SIGNAL PATH


J701 (TO LUMI / CHRO & AUDIO)
1 TU.VIDEO P7002 - 1
2 TU. GND P7002 - 2
3 TU. AUDIO P7002 - 3
4 SYSTEM I Ⓗ P7002 - 4
5 P7002 - 5
6 P7002 - 6
7 P7002 - 7
IC704 UPD4066BC
IC703 AN5215
SIF LIMITER AMP
FM DET
IC702 TA8710S
500KHz OSC
L.P.F
MIX
Q704 MSD601 (AMP)
Q705 2SC2404 (INV.)
Q706 2SC2404 (BUFFER)
Q707 MSD601 (VOLTAGE STABLLIZER)
Q708 2SD1328 (MUTE)
Q712 2SC1317 (VOLTAGE STABILIZER)
QR720 MRN1402 (D.NTSC Ⓗ :ON)
QR722 MRN1404 (D.NTSC Ⓗ :ON)
QR719 MRN1407 (SYNC Ⓗ/D.NTSC OFF)
QR714 MRN1402 (D.NTSC Ⓗ :ON)
QR718 MRN1404 (SYSTEM I Ⓗ :ON)
QR702 MRN1404 (P.B Ⓗ :ON)
QR716 MRN1404 (D.NTSC:OFF)
QR715 MRN1404 (D.NTSC Ⓗ :ON)
X717 EFCS4R5-MS5 (4.5MHz TRAP)
X712 EFCS6R0MS5 (6.0MHz TRAP)
X714 EFOA500K04-B
X715 ELB5A016
X710 EFCH38MGT3
T711 EIS5EC006A
T713 EIS5EC005A
T712 EIS5E016P
VR752 5KB AUDIO LEVEL (NTSC)
VR751 5KB AUDIO LEVEL (PAL)
VCO
SIF
2ND IF AMP
SIF DET
LIM
TP710
TP704
TP706
J702 (LUMI/CHRO & AUDIO)
1 N.SW 5V P7001 - 1
2 TU.GND P7001 - 2
3 REG 4.5V P7001 - 3
4 REG 12.3V P7001 - 4
5 PB. Ⓗ P7001 - 5
6 D.NTSC. Ⓗ P7001 - 6

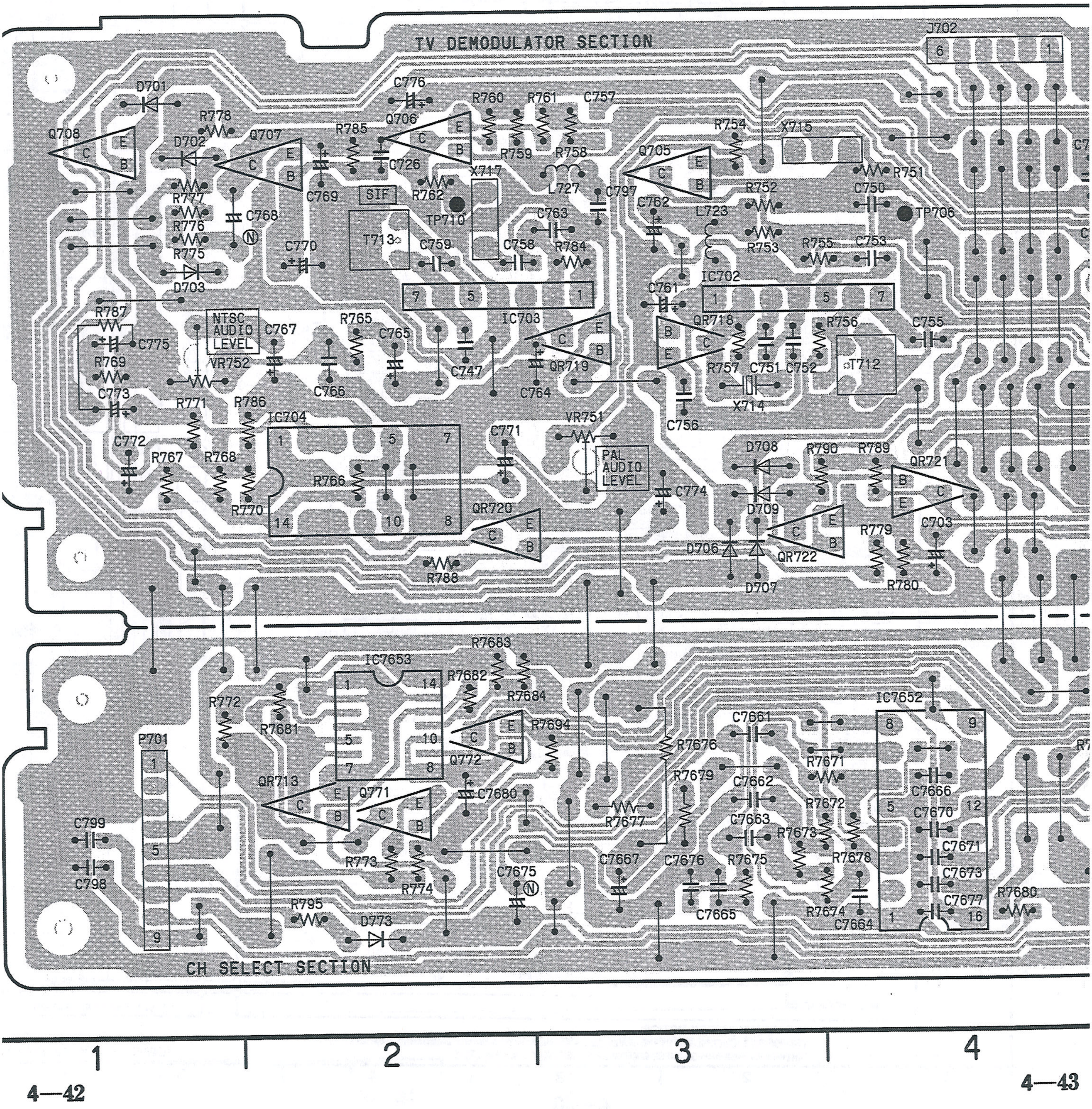
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

8
9
10
11
12

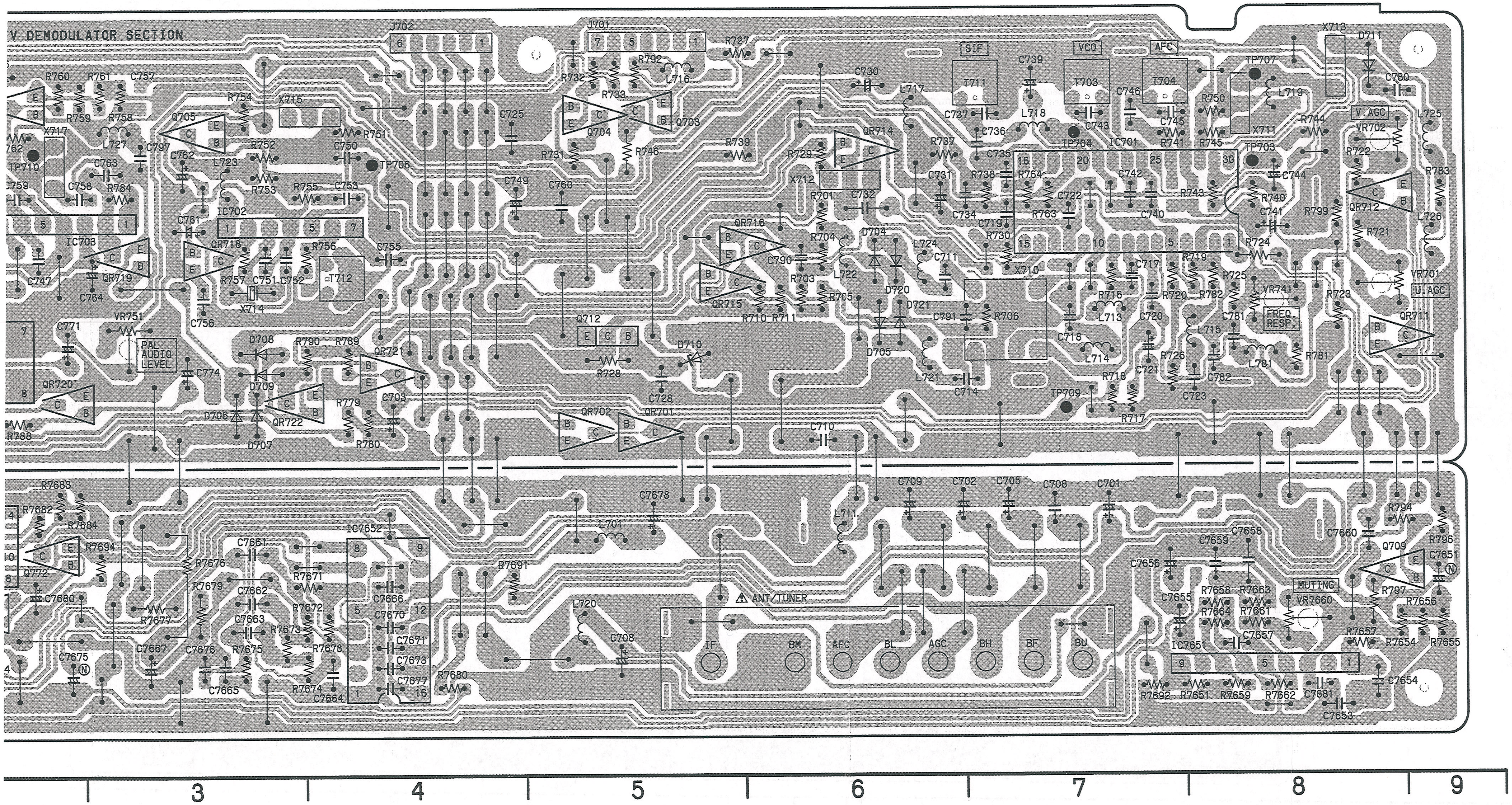
TV DEMODULATOR & CH SELECT C.B.A. (VEP07635A)


TV DEMODULATOR SECTION
CH SELECT SECTION
J702
P701
IC702
IC703
IC704
IC7652
IC7653
NTSC AUDIO LEVEL
PAL AUDIO LEVEL
VR752
VR751
TP710
TP706
D
C
B
A
1
2
3
4

EMODULATOR & CH SELECT C.B.A. (VEP07635A)


TV DEMODULATOR SECTION
J702
6
1
D701
R778
Q708
D702
Q707
C776
R785
Q706
C726
R760
R761
C757
R759
R758
X717
R762
TP710
SIF
T713
C769
C768
R777
R776
R775
D703
C770
C759
C758
C763
R784
L727
C797
R754
X715
Q705
R751
R752
C750
TP706
C762
L723
R753
R755
C753
IC702
C761
QR718
R756
C755
T712
R757
C751
C752
X714
C756
IC703
QR719
C764
C747
R765
C765
C766
C767
NTSC AUDIO LEVEL
VR752
R787
C775
R769
C773
C772
R771
R786
IC704
R767
R768
R770
R766
C771
VR751
PAL AUDIO LEVEL
C774
QR720
R788
D708
R790
R789
QR721
D709
D706
QR722
D707
R779
C703
R780
R7683
IC7653
R7682
R7684
R772
R7681
P701
Q772
R7694
R7676
C7661
R7671
IC7652
QR713
Q771
C7680
R7679
C7662
R7677
R7672
C7666
C7670
C7663
R7673
R7678
C7671
C7673
C799
C798
R773
R774
C7675
C7667
C7676
R7675
R7674
C7664
C7665
C7677
R7680
R795
D773
CH SELECT SECTION
1
2
3
4

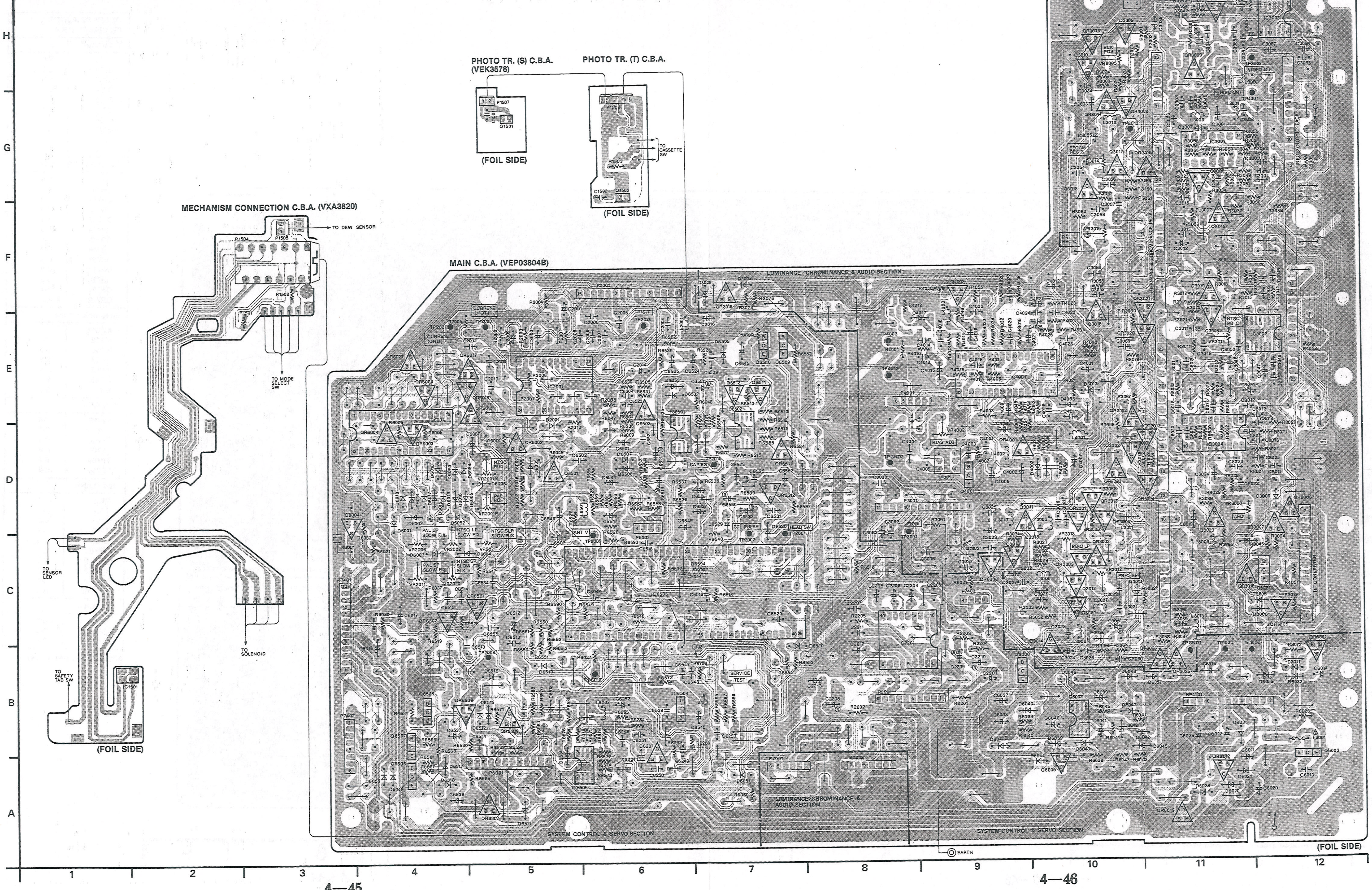
T C.B.A. (VEP07635A)


TV DEMODULATOR SECTION
J702
J701
SIF
VCO
AFC
T711
T703
T704
X713
D711
TP707
TP703
TP704
TP706
TP709
TP710
IC701
IC702
IC703
IC7651
IC7652
V.AGC
U.AGC
VR702
VR701
VR741
FREQ. RESP.
VR751
PAL AUDIO LEVEL
X715
X717
X714
X712
X710
X711
Q703
Q704
Q705
Q709
Q712
Q772
QR701
QR702
QR711
QR712
QR714
QR715
QR716
QR718
QR719
QR720
QR721
QR722
T712
L701
L711
L720
C7678
C709
C702
C705
C706
C701
MUTING
VR7660
ANT/TUNER
IF
BM
AFC
BL
AGC
BH
BF
BU
3
4
5
6
7
8
9

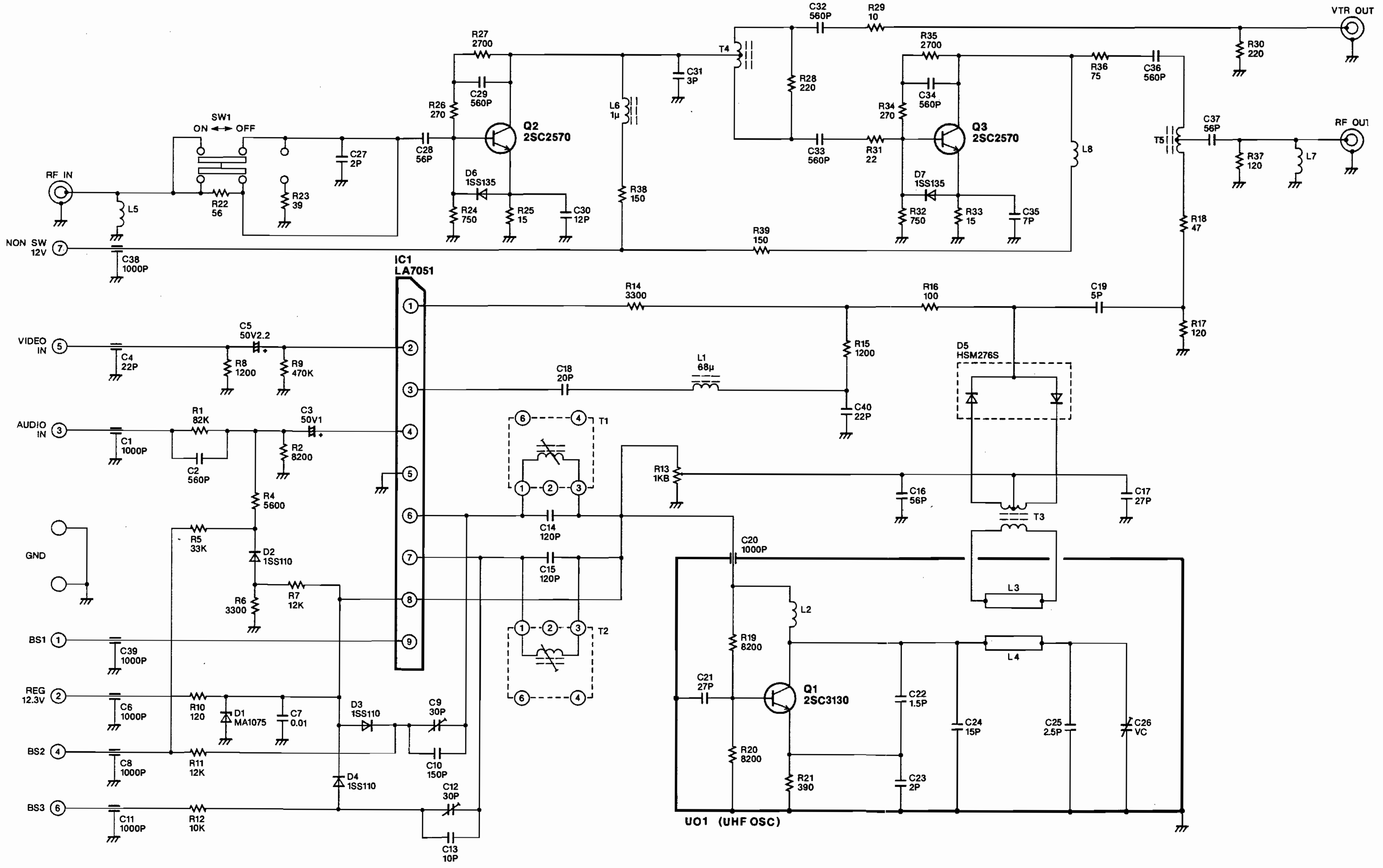
TV DEMODULATOR & CH SELECT C.B.A.	
Transistor	
Q703	C-5
Q704	C-5
Q705	C-3
Q706	D-2
Q707	D-2
Q708	D-1
Q709	B-8
Q712	C-5
Q771	A-2
Q772	A-2
Transistor & Resistor	
QR701	B-5
QR702	B-5
QR711	C-9
QR712	C-8
QR713	A-2
QR714	C-6
QR715	C-5
QR716	C-6
QR718	C-3
QR719	C-3
QR720	B-2
QR721	B-4
QR722	B-3
Integrated Circuit	
IC701	C-7
IC702	C-3
IC703	C-3
IC704	C-2
IC7651	A-8
IC7652	B-4
IC7653	B-2
Test Point	
TP703	C-8
TP704	C-7
TP706	C-4
TP707	D-8
TP709	B-7
TP710	C-2
Adjustment	
T703	D-7
T704	D-7
T711	D-7
T713	C-2
VR701	C-9
VR702	C-8
VR741	C-8
VR751	C-3
VR752	C-1
VR7660	A-8
Connector	
J701	D-5
J702	D-4
P701	B-1

ADDRESS INFORMATION

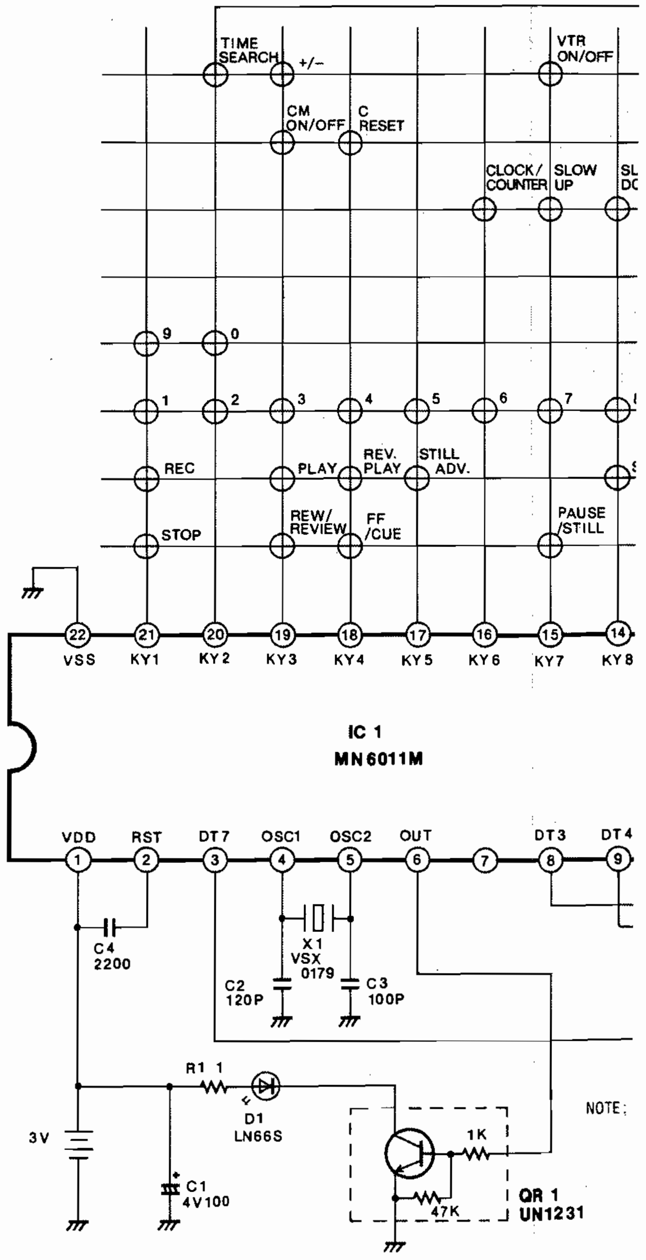
MAIN C.B.A. (VEP03804B)

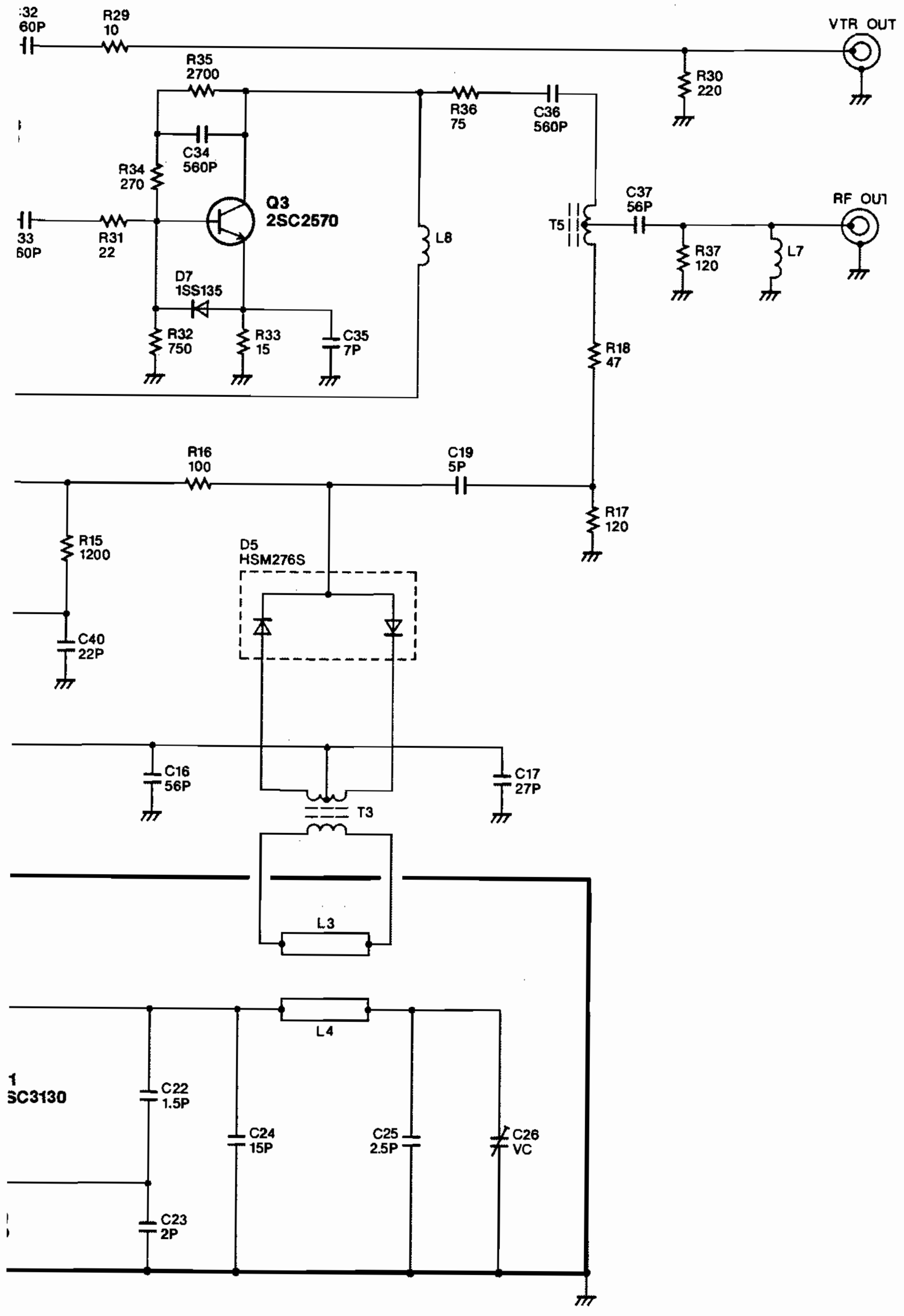

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
PHOTO TR. (S) C.B.A. (VEK3578)
P1507
Q1501
(FOIL SIDE)
PHOTO TR. (T) C.B.A.
P1506
TO CASSETTE SW
R1503
C1502
Q1502
(FOIL SIDE)
MECHANISM CONNECTION C.B.A. (VXA3820)
TO DEW SENSOR
P1504
P1505
R1502
R1501
TO MODE SELECT SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
C1501
(FOIL SIDE)
MAIN C.B.A. (VEP03804B)
LUMINANCE, CHROMINANCE & AUDIO SECTION
LUMINANCE/CHROMINANCE & AUDIO SECTION
SYSTEM CONTROL & SERVO SECTION
SYSTEM CONTROL & SERVO SECTION
VIDEO OUT
AUDIO OUT
SECAM REC C
PAL REC C
CURRENT
BIAS ADJ
CAP FG
DTL PULSE
HEAD SW
SERVICE TEST
ART V
PAL LP SLOW FIX
NTSC LP SLOW FIX
NTSC SLR SLOW FIX
PAL SP SLOW FIX
NTSC SP SLOW FIX
NTSC PG
PAL PG
PB IG LP
PB IG SP
EARTH
(FOIL SIDE)

RF CONVERTER SCHEMATIC DIAGRAM (ENC87750)

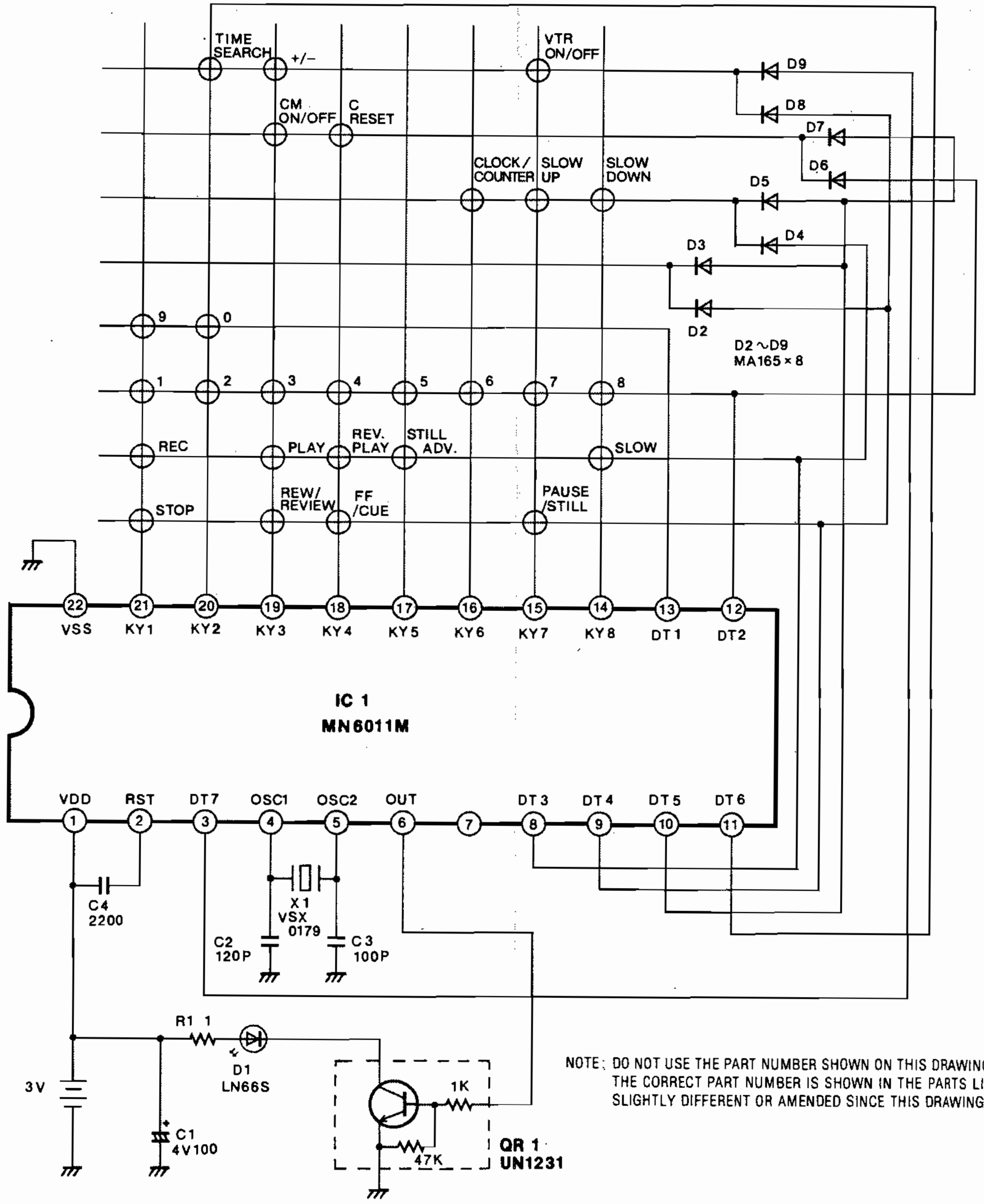

RF IN
L5
SW1
ON ◄► OFF
R22 56
R23 39
C27 2P
C28 56P
R26 270
R27 2700
C29 560P
Q2 2SC2570
D6 1SS135
R24 750
R25 15
C30 12P
L6 1µ
R38 150
C31 3P
T4
C32 560P
R29 10
R28 220
C33 560P
R31 22
R35 2700
C34 560P
R34 270
Q3 2SC2570
D7 1SS135
R32 750
R33 15
C35 7P
L8
R36 75
C36 560P
VTR OUT
R30 220
T5
C37 56P
R37 120
L7
RF OUT
R18 47
R39 150
NON SW 12V ⑦
C38 1000P
IC1 LA7051
R14 3300
R16 100
C19 5P
R17 120
VIDEO IN ⑤
C4 22P
C5 50V2.2
R8 1200
R9 470K
R15 1200
D5 HSM276S
C18 20P
L1 68µ
C40 22P
AUDIO IN ③
C1 1000P
R1 82K
C2 560P
C3 50V1
R2 8200
T1
R13 1KB
C16 56P
C17 27P
T3
GND
R4 5600
R5 33K
D2 1SS110
R6 3300
R7 12K
C14 120P
C15 120P
C20 1000P
L3
L2
T2
BS1 ①
C39 1000P
R19 8200
C21 27P
Q1 2SC3130
L4
C22 1.5P
C24 15P
C25 2.5P
C26 VC
REG 12.3V ②
C6 1000P
R10 120
D1 MA1075
C7 0.01
D3 1SS110
C9 30P
BS2 ④
C8 1000P
R11 12K
C10 150P
D4 1SS110
R20 8200
R21 390
C23 2P
BS3 ⑥
C11 1000P
R12 10K
C12 30P
C13 10P
UO1 (UHF OSC)

REMOTE CONTROLLER SCHEM


TIME SEARCH
+/-
VTR ON/OFF
CM ON/OFF
C RESET
CLOCK/ COUNTER
SLOW UP
9
0
1
2
3
4
5
6
7
REC
PLAY
REV. PLAY
STILL ADV.
STOP
REW/ REVIEW
FF /CUE
PAUSE /STILL
VSS
KY1
KY2
KY3
KY4
KY5
KY6
KY7
KY8
IC 1
MN6011M
VDD
RST
DT7
OSC1
OSC2
OUT
DT3
DT4
C4 2200
X1 VSX 0179
C2 120P
C3 100P
R1 1
D1 LN66S
3V
C1 4V100
1K
47K
QR 1 UN1231
NOTE;

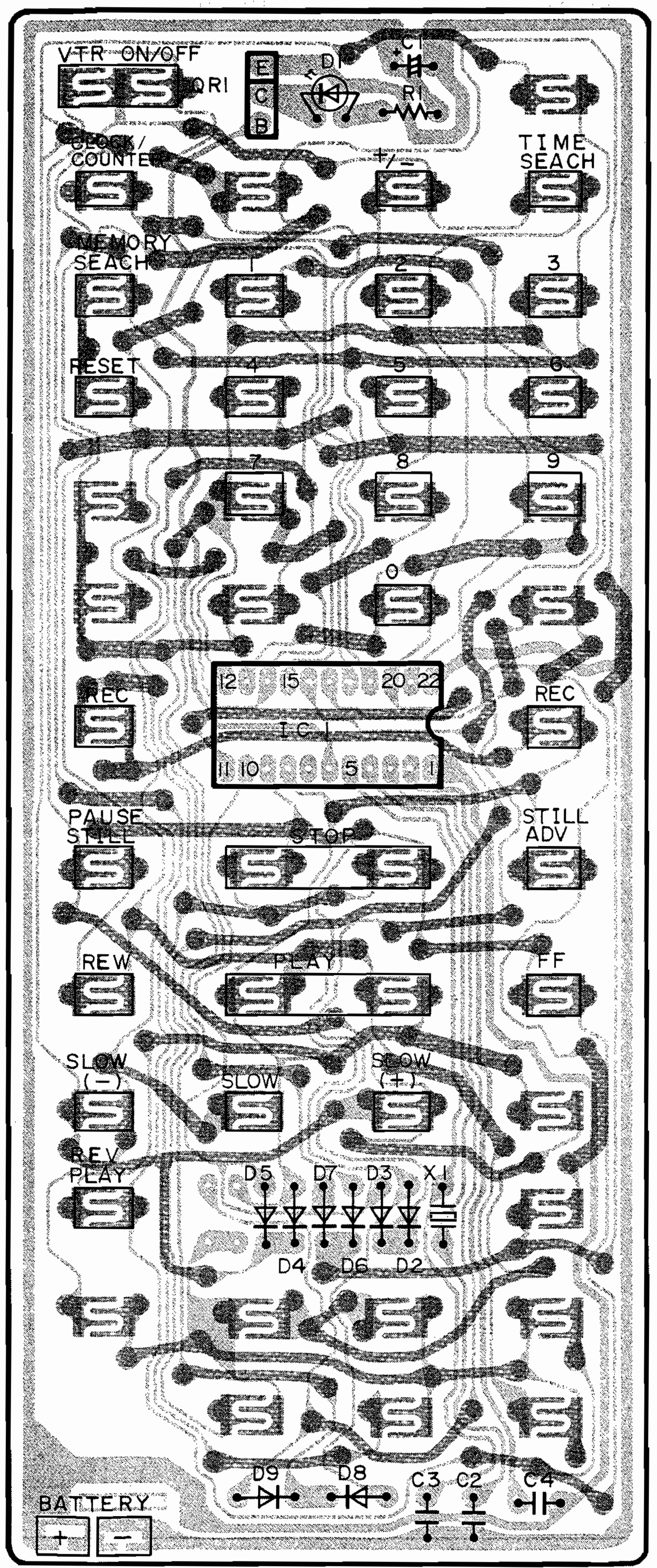

32
60P
R29
10
VTR OUT
R35
2700
R30
220
R36
75
C36
560P
C34
560P
R34
270
Q3
2SC2570
33
60P
R31
22
L8
T5
C37
56P
RF OUT
R37
120
L7
D7
1SS135
R32
750
R33
15
C35
7P
R18
47
R16
100
C19
5P
R17
120
R15
1200
D5
HSM276S
C40
22P
C16
56P
T3
C17
27P
L3
L4
SC3130
C22
1.5P
C24
15P
C25
2.5P
C26
VC
C23
2P

REMOTE CONTROLLER SCHEMATIC DIAGRAM

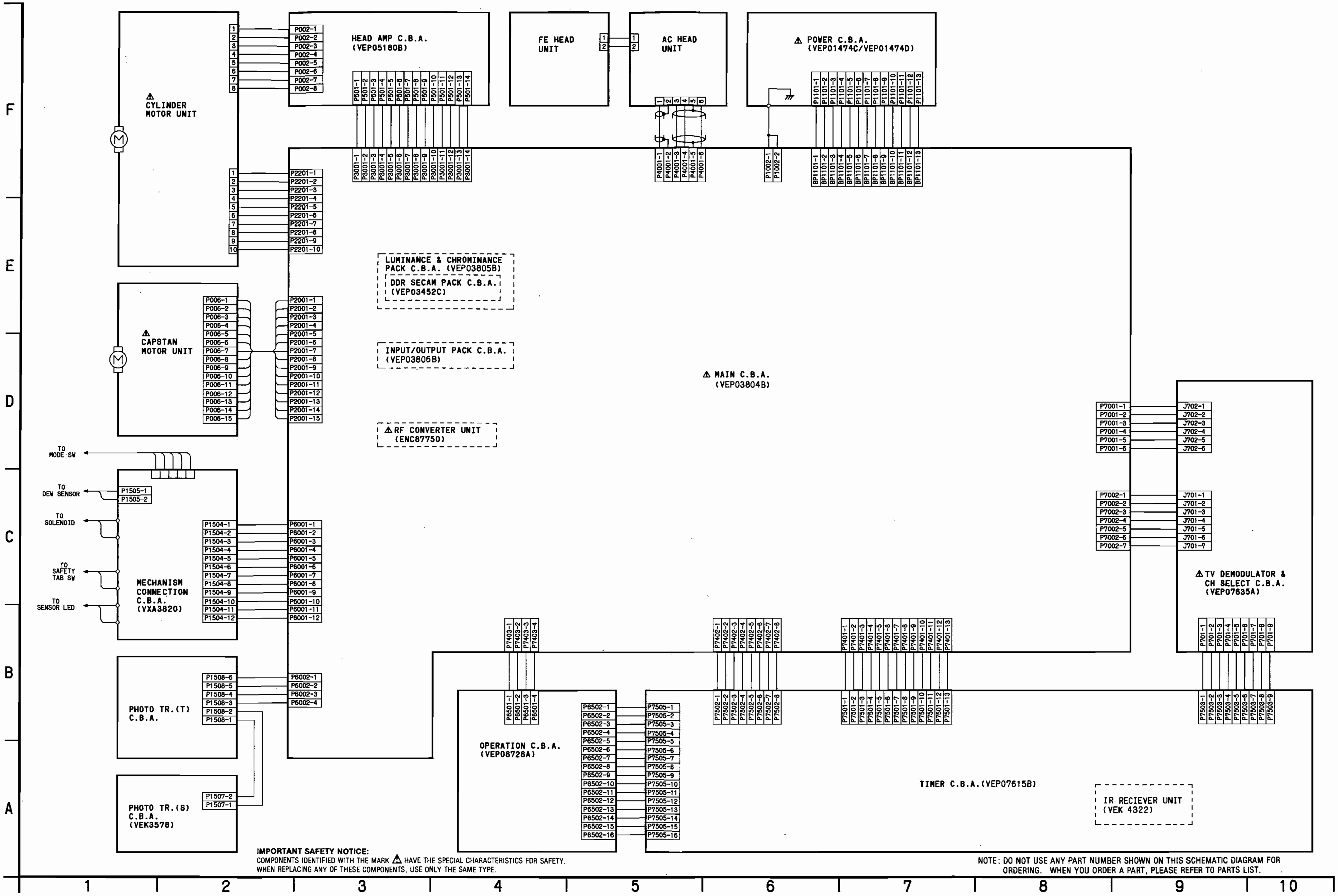

TIME SEARCH
+/-
VTR ON/OFF
D9
D8
D7
D6
D5
D4
D3
D2
CM ON/OFF
C RESET
CLOCK/ COUNTER
SLOW UP
SLOW DOWN
D2~D9
MA165 × 8
9
0
1
2
3
4
5
6
7
8
REC
PLAY
REV. PLAY
STILL ADV.
SLOW
STOP
REW/ REVIEW
FF /CUE
PAUSE /STILL
22 VSS
21 KY1
20 KY2
19 KY3
18 KY4
17 KY5
16 KY6
15 KY7
14 KY8
13 DT1
12 DT2
IC 1
MN6011M
1 VDD
2 RST
3 DT7
4 OSC1
5 OSC2
6 OUT
7
8 DT3
9 DT4
10 DT5
11 DT6
C4
2200
X1
VSX
0179
C2
120P
C3
100P
R1 1
D1
LN66S
3V
C1
4V100
1K
47K
QR 1
UN1231

NOTE; DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

REMOTE CONTROLLER C.B.A. (VEP66038B)


VTR ON/OFF
QR1
E
C
B
D1
C1
R1
CLOCK/ COUNTER
+/-
TIME SEACH
MEMORY SEACH
1
2
3
RESET
4
5
6
7
8
9
0
REC
12 15 20 22
I C 1
11 10 5 1
REC
PAUSE STILL
STOP
STILL ADV
REW
PLAY
FF
SLOW (-)
SLOW
SLOW (+)
REV PLAY
D5 D7 D3 X1
D4 D6 D2
D9
D8
C3
C2
C4
BATTERY
+
-

INTERCONNECTION SCHEMATIC DIAGRAM


⚠ CYLINDER MOTOR UNIT
HEAD AMP C.B.A. (VEP05180B)
FE HEAD UNIT
AC HEAD UNIT
⚠ POWER C.B.A. (VEP01474C/VEP01474D)
⚠ CAPSTAN MOTOR UNIT
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805B)
DDR SECAM PACK C.B.A. (VEP03452C)
INPUT/OUTPUT PACK C.B.A. (VEP03806B)
⚠ RF CONVERTER UNIT (ENC87750)
⚠ MAIN C.B.A. (VEP03804B)
TO MODE SW
TO DEW SENSOR
TO SOLENOID
TO SAFETY TAB SW
TO SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3820)
⚠ TV DEMODULATOR & CH SELECT C.B.A. (VEP07635A)
PHOTO TR.(T) C.B.A.
PHOTO TR.(S) C.B.A. (VEK3578)
OPERATION C.B.A. (VEP08728A)
TIMER C.B.A.(VEP07615B)
IR RECIEVER UNIT (VEK 4322)
P002-1 … P002-8
P501-1 … P501-14
P3001-1 … P3001-14
P4001-1 … P4001-6
P1002-1
P1002-2
P1101-1 … P1101-13
BP1101-1 … BP1101-13
P2201-1 … P2201-10
P006-1 … P006-15
P2001-1 … P2001-15
P1505-1
P1505-2
P1504-1 … P1504-12
P6001-1 … P6001-12
P1508-1 … P1508-6
P6002-1 … P6002-4
P1507-1
P1507-2
P7001-1 … P7001-6
J702-1 … J702-6
P7002-1 … P7002-7
J701-1 … J701-7
P7403-1 … P7403-4
P8501-1 … P8501-4
P7402-1 … P7402-8
P7502-1 … P7502-8
P7401-1 … P7401-13
P7501-1 … P7501-13
P701-1 … P701-9
P7503-1 … P7503-9
P6502-1 … P6502-16
P7505-1 … P7505-16
F
E
D
C
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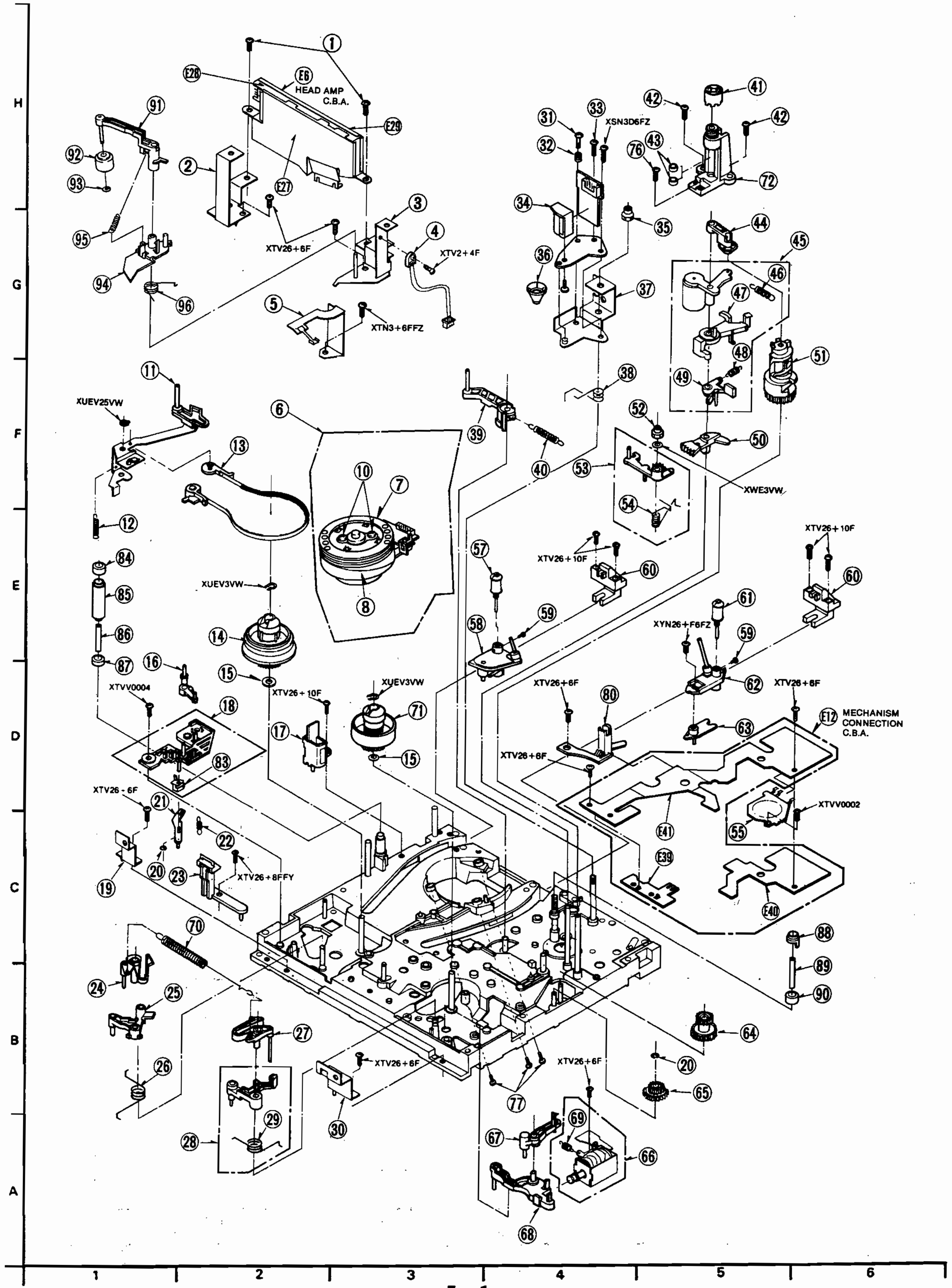
9
10

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

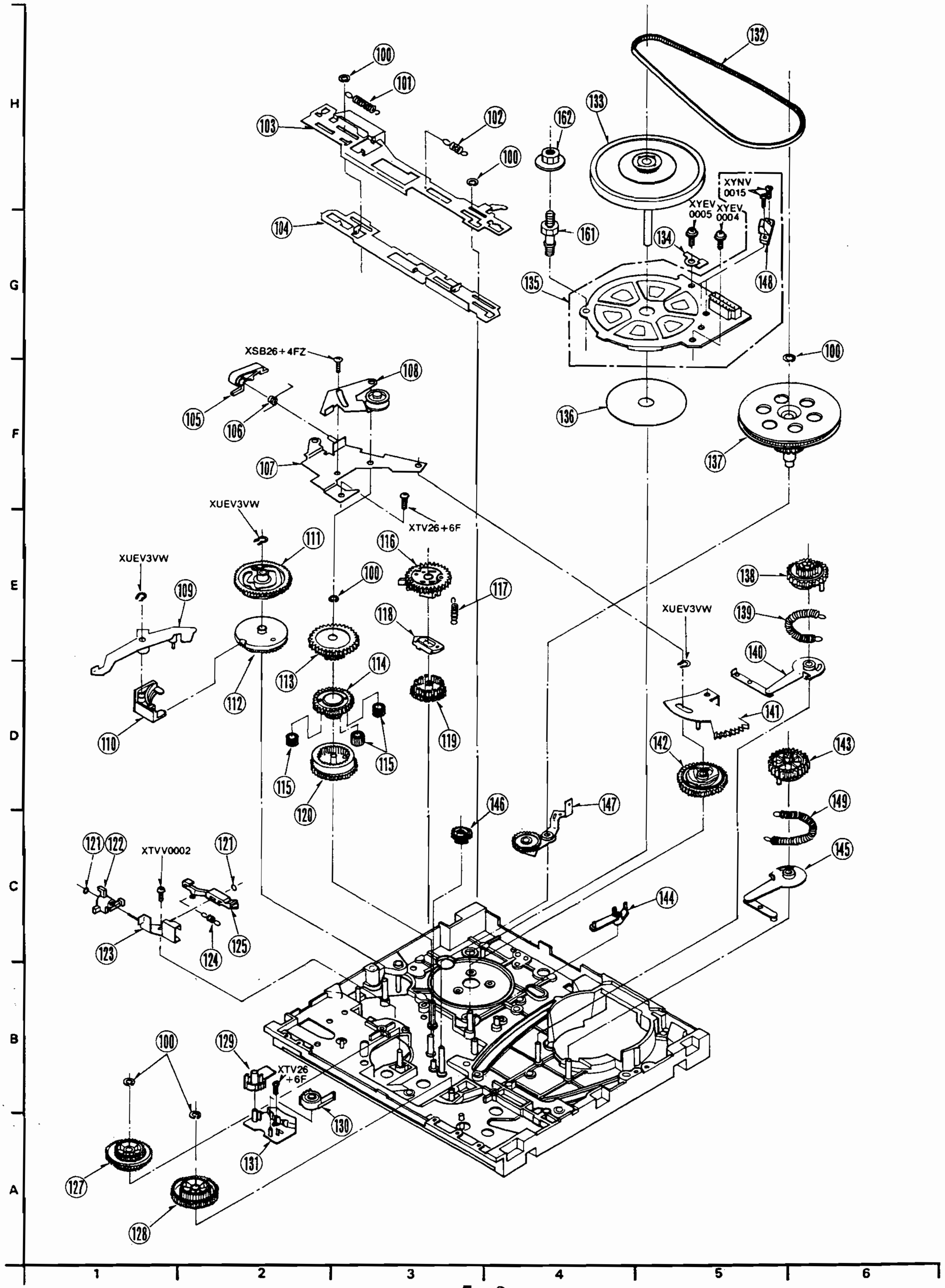
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

EXPLODED VIEWS

❶ *Chassis Parts Section (1)*


H
G
F
E
D
C
B
A
1
2
3
4
5
6
1
E28
E6 HEAD AMP C.B.A.
E29
91
92
93
2
E27
3
95
XTV26+8F
4
XTV2+4F
94
96
5
XTN3+6FFZ
31
33
XSN3D6FZ
32
42
41
43
76
72
34
35
44
45
36
46
37
47
48
51
49
38
11
XUEV25VW
6
39
52
40
50
13
10
7
53
XWE3VW
54
12
84
XUEV3VW
8
85
57
XTV26+10F
60
XTV26+10F
60
86
14
58
59
61
XYN26+F6FZ
59
87
16
XTVV0004
15
XTV26+10F
XUEV3VW
71
18
62
XTV26+6F
80
XTV26+8F
E12 MECHANISM CONNECTION C.B.A.
17
63
83
15
XTV26+8F
XTV26-6F
21
E41
XTVV0002
55
22
20
23
XTV26+8FFY
19
E39
E40
70
88
89
90
24
25
27
64
XTV26+8F
XTV26+6F
20
26
65
77
30
29
69
67
28
66
68

❷ *Chassis Parts Section (2)*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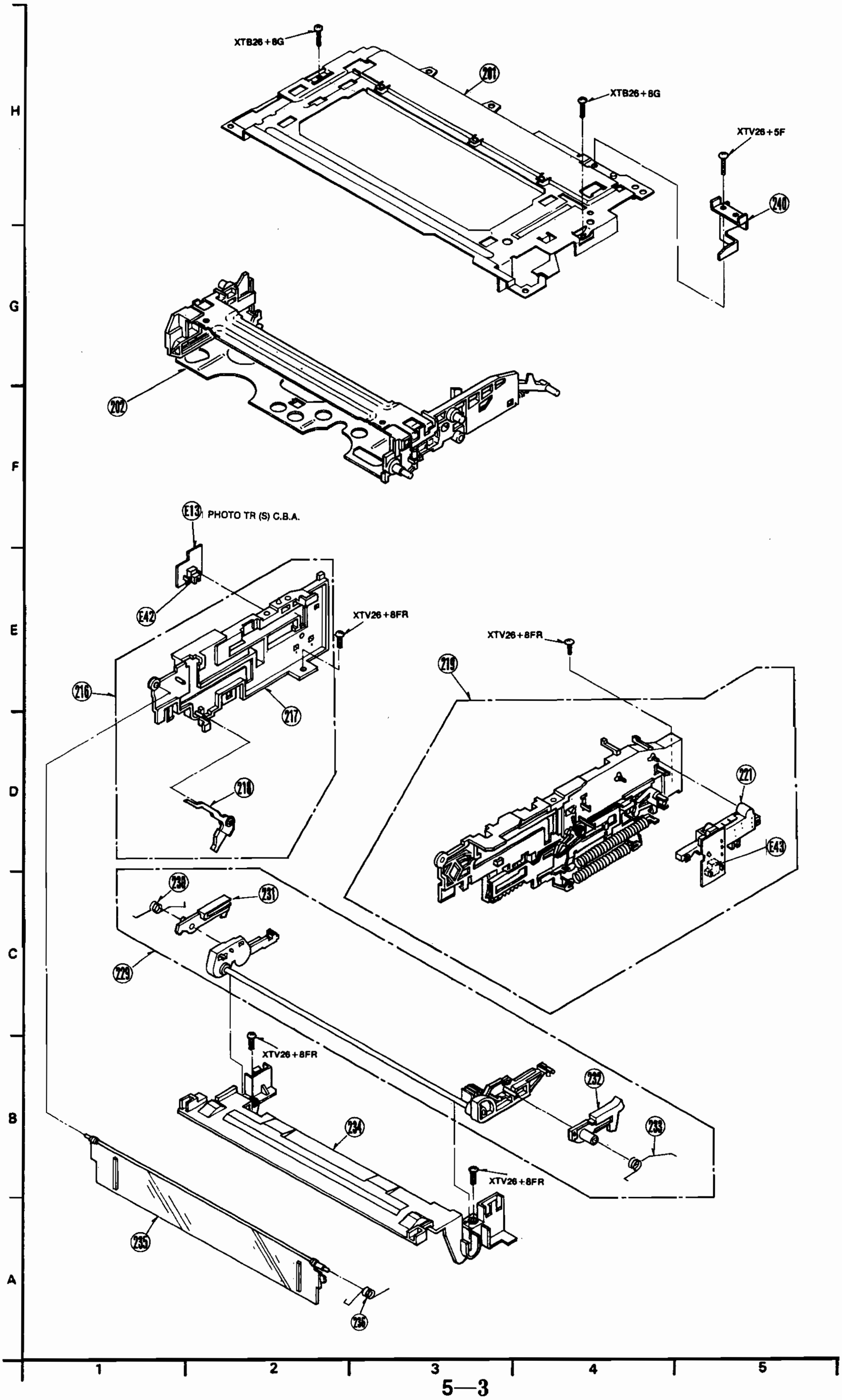
4
5
6
132
100
101
162
133
103
102
100
XYNV 0015
XYEV 0005
XYEV 0004
104
134
161
135
148
100
XSB26+4FZ
108
105
106
136
137
107
XUEV3VW
XTV26+6F
111
116
100
117
XUEV3VW
109
138
118
XUEV3VW
139
113
114
140
112
119
141
110
115
115
142
143
120
146
147
149
121
122
XTVV0002
121
145
144
123
124
125
100
129
XTV26 +6F
130
131
127
128

❸ *Front Loading Mechanism Section*



XTB26+8G
201
XTB26+8G
XTV26+5F
240
202
E13 PHOTO TR (S) C.B.A.
E42
XTV26+8FR
216
217
218
XTV26+8FR
219
221
E43
230
231
229
XTV26+8FR
232
234
233
XTV26+8FR
235
236
H
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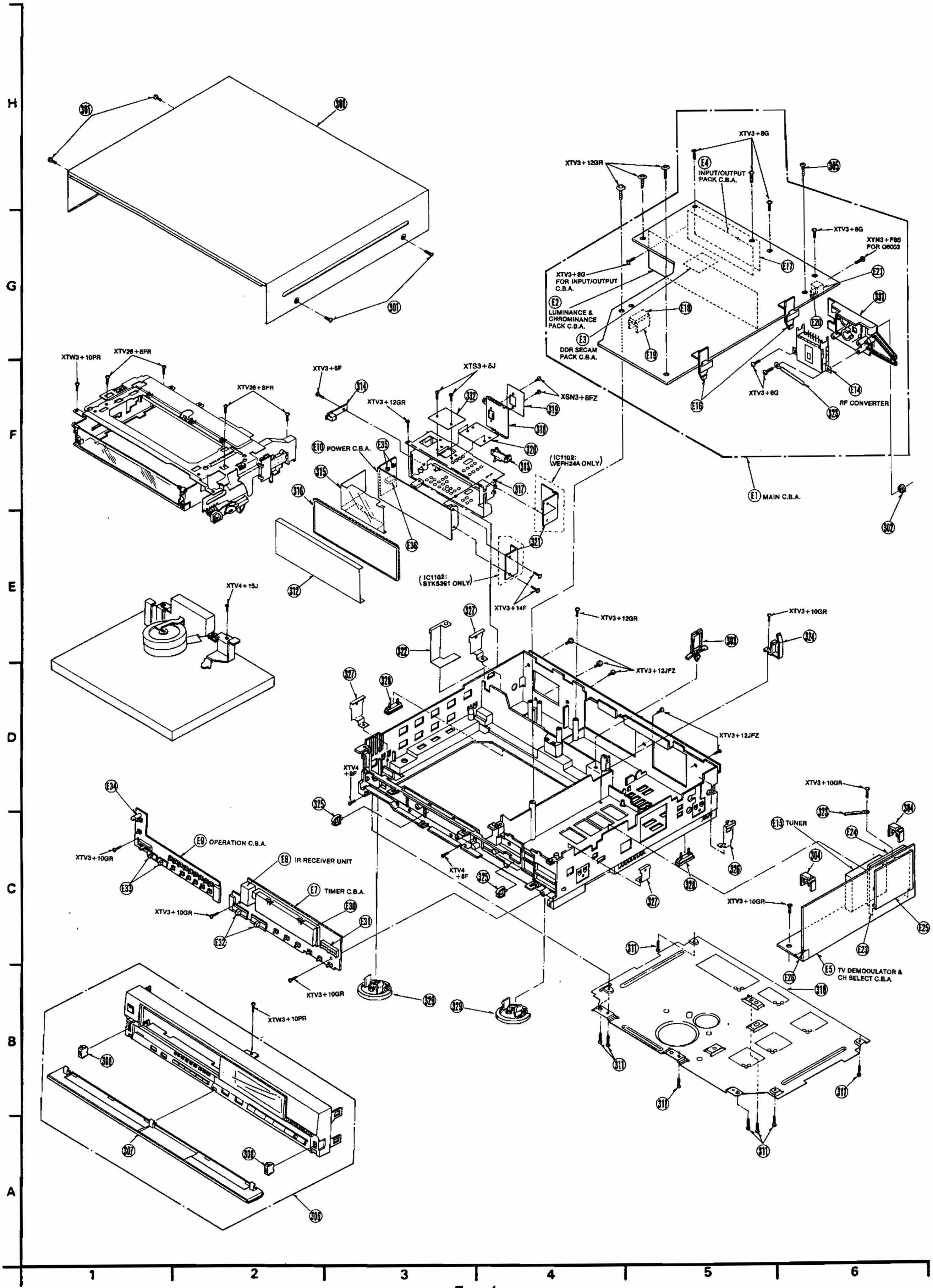
5

④ Casing Parts Section


H
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A
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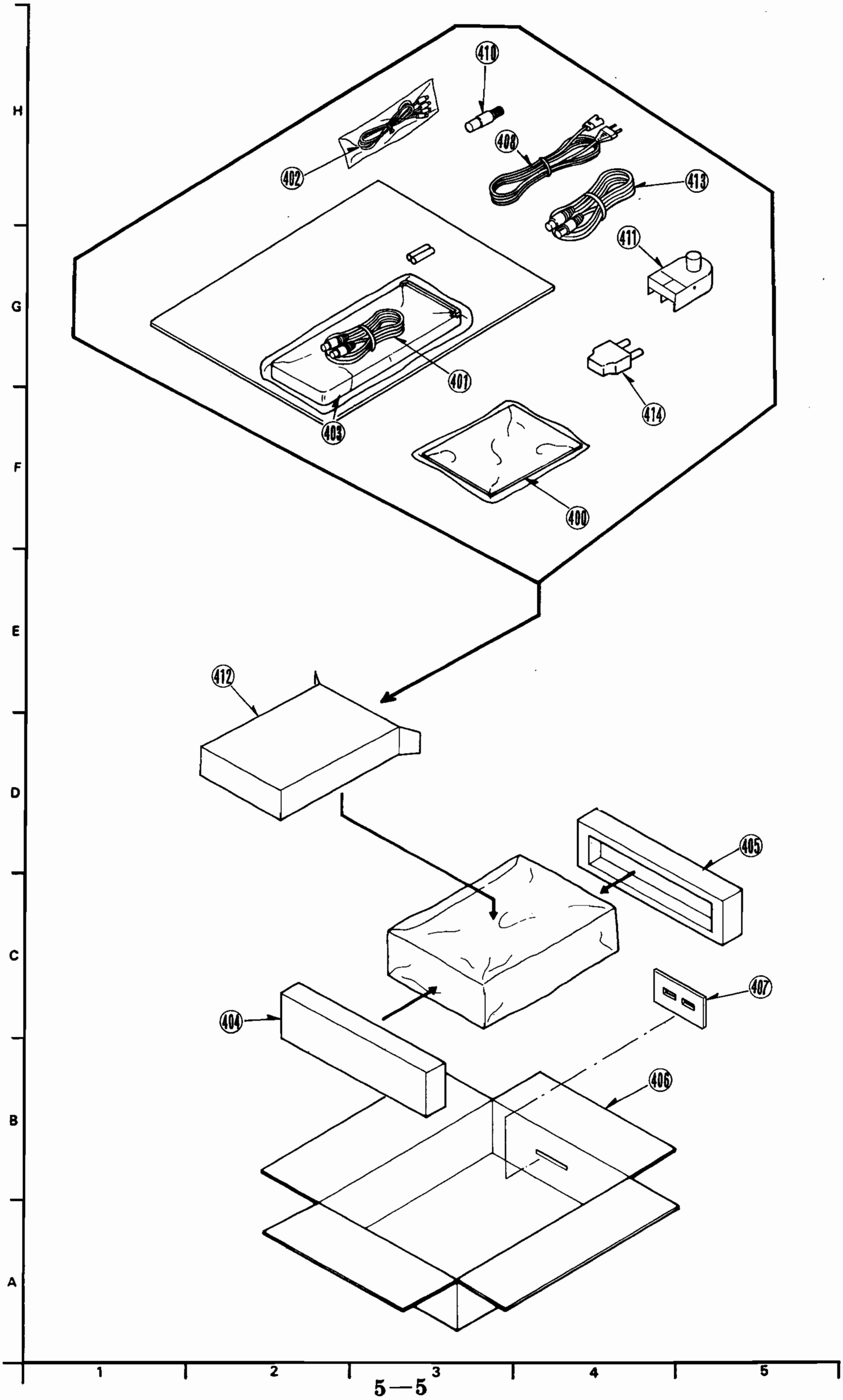
6
301
300
301
XTV3+12GR
XTV3+8G
E4 INPUT/OUTPUT PACK C.B.A.
305
XTV3+8G
XYN3+F8S FOR Q6003
E17
E21
XTV3+8G FOR INPUT/OUTPUT C.B.A.
E2 LUMINANCE & CHROMINANCE PACK C.B.A.
E3 DDR SECAM PACK C.B.A.
E18
E19
E20
331
E16
XTV3+8G
E14
RF CONVERTER
323
E1 MAIN C.B.A.
302
XTW3+10PR
XTV26+8FR
XTV26+8FR
XTV3+6F
314
XTS3+8J
332
XSN3+8FZ
319
XTV3+12GR
318
320
313
E10 POWER C.B.A.
E35
315
316
317
(IC1102: VEFH24A ONLY)
321
E36
312
(IC1102: STK5391 ONLY)
XTV3+14F
XTV4+15J
327
XTV3+12GR
XTV3+10GR
303
324
322
XTV3+12JFZ
327
328
XTV3+12JFZ
XTV4 +8F
325
E34
XTV3+10GR
E9 OPERATION C.B.A.
E33
E8 IR RECEIVER UNIT
E7 TIMER C.B.A.
XTV3+10GR
E30
E31
E32
XTV4 +8F
325
XTV3+10GR
323
304
E15 TUNER
E24
326
328
327
304
XTV3+10GR
E25
311
E23
E26
E5 TV DEMODULATOR & CH SELECT C.B.A.
310
XTV3+10GR
329
329
XTW3+10PR
308
307
308
306
311
311
311
311

❺ Packing Parts Section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410
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408
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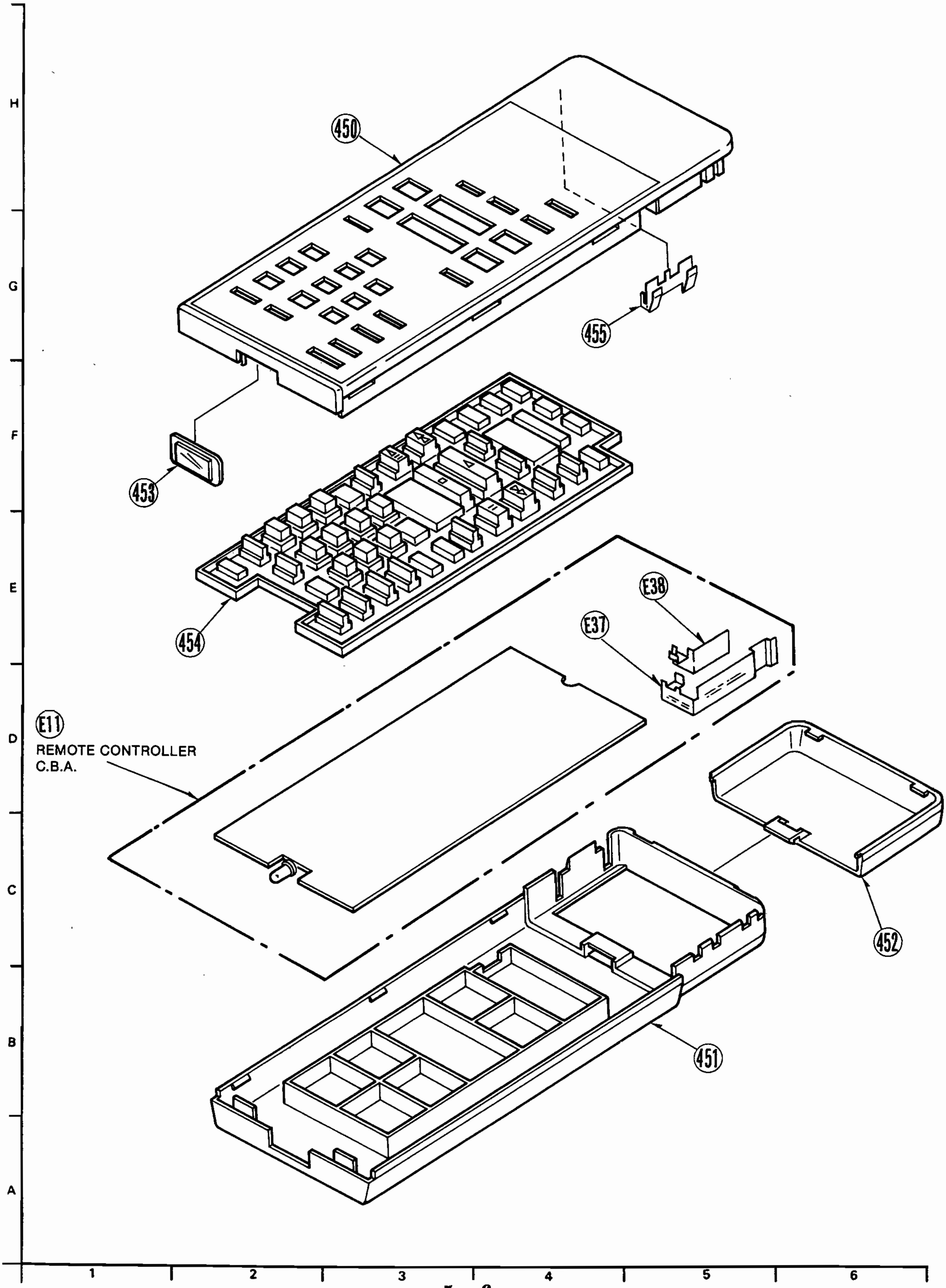
❻ Remote Controller Unit



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450
455
453
454
E38
E37
E11
REMOTE CONTROLLER
C.B.A.
452
451

MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA4342	HEAD AMP MOUNT ANGLE (R)	1	
4(1)		VEK3185	DEW DETECTOR UNIT	1	
5(1)		VXS0082	EARTH PLATE UNIT	1	
6(1)		VEG0866	CYLINDER UNIT	1	<!>
7(1)		VEH0508	UPPER CYLINDER UNIT	1	<!>
8(1)		VJR0082	RT TERMINAL	1	
10(1)		VHD0425	UPPER CYLINDER SET SCREW	2	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0185	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	2	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0489	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1857	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE SPRING	1	
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0597	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHD0045	M3 NYLON NUT	1	
53(1)		VXL2027	P5 UNIT	1	
54(1)		VMB2718	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA4106	INCLINED BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764	ROLLER POST UNIT	1	
62(1)		VXA3876	INCLINED BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLINED ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0664	CONNECTION GEAR	1	
66(1)		VXA3735	SOLENOID UNIT	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1958	MAIN BRAKE SPRING	1	
71(1)		VXR0188	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0342	CYLINDER SCREW	3	
80(1)		VXA3520	LED HOLDER UNIT	1	
83(1)		VMB1733	LEAF SPRING	1	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX1581	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VXL2086	CLEANER ARM (2) UNIT	1	
92(1)		VXP1269	CLEANER ROLLER UNIT	1	
93(1)		VMX1061	SNAP WASHER A	1	
94(1)		VML2510	CLEANER ARM B	1	
95(1)		VMB2263	CLEANER ARM SPRING A	1	
96(1)		VMB2264	CLEANER ARM SPRING B	1	
100(2)		VMX1079	CUT WASHER	6	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE ARM SPRING	1	
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA3509	MAIN LEVER (1) UNIT	1	
104(2)		VMM0215	SUB LEVER	1	
105(2)		VXL2088	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1002	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0445	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP1113	ROTOR UNIT	1	
134(2)		VMA7941	ROTOR STOPPER	1	
135(2)		VEK4105	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0917	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0448	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	

REPLACEMENT PARTS LIST

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA4325	CASSETTE HOLDER UNIT	1	
216(3)		VXA4357	SIDE PLATE (L) UNIT	1	
217(3)		VMD1726	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3895	SIDE PLATE (R) UNIT	1	
221(3)		VXA4642	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM (L)	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1026	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP3491	TOP PANEL UNIT	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VMG0272	RF CONVERTER BUSHING	1	
303(4)		VJF0031	WIRE SADDLE	1	
304(4)		VGQ1362	DEMODULATOR HOLDER	2	
305(4)		VHD0418	MAIN SCREW	1	
306(4)		VYP3465	FRONT PANEL UNIT	1	
307(4)		VYF1659	FRONT DOOR UNIT	1	
308(4)		VGQ0963	DOOR LOCK MAGNET	2	
310(4)		VKU0268	BOTTOM PLATE	1	
311(4)		VHD0059	BOTTOM PLATE SCREW	8	
312(4)		VMZ1824	SW NOISE SHIELD PLATE (1)	1	
313(4)		VGQ1377	TR. HOLDER	1	
314(4)		VMP1734	SCREW STOPER ANGLE	1	
315(4)		VMZ1208	SW BARRIER (A)	1	<!>
316(4)		VSC2237	POWER SHIELD CASE (BOTTOM)	1	
317(4)		VXA3179	POWER SHIELD CASE (MAIN)	1	
318(4)		VSC2543	POWER SHIELD CASE (TOP)	1	
319(4)		VGH1612	NAME PLATE	1	
320(4)		VMZ1440	INSULATING SHEET	1	
321(4)		VSC3134	IC HEAT SINK	1	FOR IC1102 (VEFH24A)
321(4)		VSC2238	IC HEAT SINK	1	FOR IC1102 (STK5391)
322(4)		VMP1735	N-FTZ EARTH ANGLE	1	
323(4)		VJR3	CLAMPER	2	
324(4)		VJF0632	LOCKING WIRE SADDLE	1	
325(4)		VJF0442	WIRE SADDLE	2	
326(4)		VMP1855	TOP HOLDER ANGLE (R)	1	
327(4)		VMP0442	TOP HOLDER ANGLE (L)	3	
328(4)		VKA0026	RUBBER FOOT	2	
329(4)		VKA0065	BOTTOM LEG	2	
331(4)		VJH0616	ANT.TERMINAL PLATE	1	
332(4)		VSC3421	HEAT SINK	1	FOR IC1101
400(5)		VQT4177	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH/SPANISH)		
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VFA0039	A/V CORD	1	
403(5)		VEQ1243	REMOTE CONTROL UNIT	1	
404(5)		VPN2064	CUSHION (L)	1	
405(5)		VPN2065	CUSHION (R)	1	
406(5)		VPG5972	PACKING	1	
408(5)		VJA0476	AC CORD	1	<!>
410(5)		VJP1384	DIN-F ADAPTOR	1	
411(5)		VSQ0057	ADAPTOR	1	
412(5)		VPK0834	ACCESSORIES PACKING	1	
413(5)		VJA0682	DIN-F RF CABLE	1	
414(5)		VJS1993	PLUG ADAPTOR	1	
450(6)		VYK3582	TOP COVER UNIT	1	
451(6)		VKM1133	BOTTOM COVER	1	
452(6)		VKF0971	BATTERY COVER	1	
453(6)		VKW0878	IR WINDOW	1	
454(6)		VSP0569	RUBBER CONTACT	1	
455(6)		VJR0185	ELECTRODE (COMMON)	1	
			JIG		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFM8080HQFP	VHS-ALIGNMENT TAPE (NTSC)	1	
		VFJ8125H3F	VHS-ALIGNMENT TAPE (PAL)	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ.	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.Printed circuit board assembly with mark(NIA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03804B	MAIN C.B.A.	1	(NIA)
					INCLUDING THE
					LUMINANCE/CHROMINANCE
					C.B.A.(VEP03805B),
					DDR SECAM C.B.A.
					(VEP03452C),
					INPUT/OUTPUT PACK
					C.B.A.(VEP03806B)
		VEP03805B	LUMINANCE/CHROMINANCE C.B.A	1	(NIA)
					INCLUDED IN MAIN
					C.B.A. (VEP03804B)
					INCLUDING DDR SECAM
					PACK C.B.A(VEP03452C)
		VEP03452C	DDR SECAM PACK C.B.A.	1	(NIA)
					INCLUDED IN
					LUMINANCE/CHROMINANCE
					C.B.A.(VEP03805B)
		VEP03806B	INPUT/OUTPUT PACK C.B.A.	1	(NIA)
					INCLUDED IN MAIN
					C.B.A. (VEP03804B)
		VEP07635A	TV DEMODULATOR & CH SELECT	1	(NIA)
			C.B.A.		
		VEP05160B	HEAD AMP C.B.A.	1	(NIA)
		VEP07615B	TIMER C.B.A.	1	(NIA)
					INCLUDING THE
					IR RECIVER UNIT
					(VEK5396)
		VEK5396	IR RECIVER UNIT	1	(NIA)
					OR VEK4322
					INCLUDED IN TIMER
					C.B.A.(VEP07615B)
		VEP06726A	OPERATION C.B.A.	1	(NIA)
		VEP01474C/D	POWER C.B.A.	1	(NIA)<!>
		VEP66038B	REMOTE CONTROLLER C.B.A.	1	(NIA)
		VXA3820	MECHANISM CONNECTION C.B.A.	1	(NIA)
		VEK3578	SUPPLY PHOTO TR. C.B.A.	1	(NIA)
		----------	TAKE-UP PROTO TR. C.B.A.	1	
		ENC87750	RF CONVERTER	1	
		ENV59843F2	TUNER	1	<!>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
F1101		XBA2C20NU0	FUSE	1	<!>
	■	VEP03804B	MAIN C.B.A.		(NIA)
BP1101		VJP1396	CONNECTOR(MALE)	1	
			CAPACITORS		
C301		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C302		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C303		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C304,05		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C306		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C307,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C309		ECQV1H334JF	P.CAPACITOR 50V 0.33U	1	
C310		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C311		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C312		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C313		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C314		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C315		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C316		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C317		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C318		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C319		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C320		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C324		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C325		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C326		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C328		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C329		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C330		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C801-03		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C804,05		ECEA0JK101	E.CAPACITOR 6.3V 100U	2	
C806-09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C811,12		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C816		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C826		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C829		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C831		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C833		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C836		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C838		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C839		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C840		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C841		ECUM1H123KBN	C.CAPACITOR CH 50V 0.012U	1	
C842		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C843		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C851		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C852		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C853		ECEA10Z47	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C856		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C859		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C2001-03		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2004-06		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2007-09		ECKF1H332KB	C.CAPACITOR 50V 3300P	3	
C2010,11		ECQB1H223JH	P.CAPACITOR 50V 0.022U	2	
C2012		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2014		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2016		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C2201		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2203		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2204-06		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208-10		ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	3	
C2211		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C2212		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C2213		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3001		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3002-05		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C3006,07		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	2	
C3008,09		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	2	
C3011		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3012		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3013,14		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3015		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3016		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C3017		ECUM1H101KBN	C.CAPACITOR 50V 100P	1	
C3018		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C3019		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3020		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3021		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3022		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3023		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3024		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3025		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3026		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3027		ECUM1H181KBN	C.CAPACITOR 50V 180P	1	
C3028		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3029		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3031		VCYE1C104MR1	S.CAPACITOR 16V 0.1U	1	
C3032		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C3033		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C3034,35		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3036-38		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	3	
C3041		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3042,43		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3044		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3045-50		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C3051		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3052-54		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3055		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3056-59		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	4	
C3060		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3061		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3062,63		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3064,65		ECUM1H181KBN	C.CAPACITOR 50V 180P	2	
C3066,67		ECUM1H331KBN	C.CAPACITOR CH 50V 330P	2	
C3068		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3069		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3505		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3506		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3507		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3508		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3509		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3510		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3511-15		ECEA1CK100	E.CAPACITOR 16V 10U	5	
C3516		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C3517		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3518		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3519		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3520		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3521		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3522		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3523,24		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4001		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4004		ECQP1332JZ	P.CAPACITOR 100V 3300P	1	
C4005		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CU221	E.CAPACITOR 16V 220U	1	
C4007		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4011		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C4014		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4015		ECEA16M10R	E.CAPACITOR 16V 10.U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4017		ECEA10M22	E.CAPACITOR 10V 22U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JN	C.CAPACITOR CH 50V 100P	2	
C4026		VCYE1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4028		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4030		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C4031		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6011		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6013		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6014		ECEA1EK470	E.CAPACITOR 25V 47U	1	
C6015		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C6016		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C6017		EECS5R5V105	TRIMMER	1	
C6020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6022		ECEA1AK470	E.CAPACITOR 10V 47U	1	
C6035		ECEA1AFS221	E.CAPACITOR 10V 220U	1	
C6037		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6038		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C6039		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C6040		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C6041		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6042		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6043,44		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C6249		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6250		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C6251		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6252		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6253		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6254		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C6502		VCYE1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6504		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C6505		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6507		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6509,10		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	2	
C6512		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6513		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6514		ECQB1H472JH	P.CAPACITOR 50V 4700U	1	
C6515		ECQB1H332JH	P.CAPACITOR 50V 0.27U	1	
C6516		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6517		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6518		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C6519		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6520		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6521		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C6522		VCYE1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6523		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C6524		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C6525		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6526		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C6527		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C6528		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6529		ECEA16M10R	E.CAPACITOR 16V 10.U	1	
C6530		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6531		VCYE1C473MR1	S.CAPACITOR 16V 0.047U	1	
C6532		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C6534		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C6537		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6538		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6539		VCYE1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6540		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6541		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6544		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6545		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C6546		ECEA25M6R8	E.CAPACITOR 25V 6.8U	1	
C6547,48		ECUM1H271KBN	C.CAPACITOR CH 50V 270P	2	
C6549		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6551		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6552		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C6555		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C8011		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C8012,13		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8014		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C8015		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8016		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C8017,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8019		ECEA0JFE221	E.CAPACITOR 6.3V 220U	1	
C8020		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8021		ECUM1H821KBN	C.CAPACITOR CH 50V 820P	1	
C8022		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8023		ECQB1H332JH	P.CAPACITOR 50V 0.27U	1	
C8024		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C8025		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C8026		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C8502		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8503		ECUM1H181KBN	C.CAPACITOR CH 50V 180P	1	
C8504		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8505		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C8506		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8519		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C8520,21		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8522		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C8523		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8524		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C8525		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C8526		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8527		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8528		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C8529		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8530		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C8531		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C8532		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C8541		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8542		ECUM1H561KBN	C.CAPACITOR CH 50V 560P	1	
C8543-46		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C8548		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8549		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C8550,51		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8552		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
			DIODES		
D301		MA4091	DIODE	1	
D801		MA723VT	DIODE	1	(VT)
D803		1SS254	DIODE	1	
D2001		1SS254	DIODE	1	
D3005-13		1SS254	DIODE	9	
D3503-05		1SS254	DIODE	3	
D4003		1SS254	DIODE	1	
D4006		1SS254	DIODE	1	
D6001-07		1SS254	DIODE	7	
D6013-19		1SS254	DIODE	7	
D6020		MA4100M	DIODE	1	
D6021		MA4140M	DIODE	1	
D6031		MA723VT	DIODE	1	(VT)
D6032		1SS254	DIODE	1	
D6035		1SS254	DIODE	1	
D6039		MA4120L	DIODE	1	
D6040		MA4062M	DIODE	1	
D6041		1SS254	DIODE	1	
D6042		MA723VT	DIODE	1	(VT)
D6043		1SS254	DIODE	1	
D6044		MA723VT	DIODE	1	(VT)
D6045,46		1SS254	DIODE	2	
D6047		MA723VT	DIODE	1	(VT)
D6048		1SS254	DIODE	1	
D6049-51		MA723VT	DIODE	3	(VT)
D6052-54		1SS254	DIODE	3	
D6056-58		1SS254	DIODE	3	
D6059		MA723VT	DIODE	1	(VT)
D6502		1SS254	DIODE	1	
D6505		1SS254	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6507,08		1SS254	DIODE	2	
D6510		1SS254	DIODE	1	
D6511		ERA15-01	DIODE	1	
D6512-20		1SS254	DIODE	9	
			DELAY		
DL801		EFDWF124A13A	DELAY	1	
			FUSE		
F6001		VSF0077	FUSE	1	
			FILTERS		
FL301		VLF0727	FILTER	1	
FL302		VLF0919	FILTER	1	
FL801		ELB4H060	FILTER	1	
FL851		EFCS4R5MS4C	FILTER	1	
FL3001		VLF0917	FILTER	1	
FL3002		VLF0918	FILTER	1	
FL8503		VLF0645	FILTER	1	
FL8504		VLF0647	FILTER	1	
FL8505		VLF0643	FILTER	1	
FL8506		VLF0644	FILTER	1	
FL8507		VLF0646	FILTER	1	
FL8508		VLF0648	FILTER	1	
FL8510		VLF0649	FILTER	1	
			ICS		
IC301		MSM6965-3RS	IC	1	
IC302		VEFH14D	IC	1	
IC303		NJM2233BMA	IC	1	
IC801		NJM2245MA	IC	1	
IC802		M52065FP	IC	1	
IC851		BA7025L	IC	1	
IC2001		BA6432S	IC	1	
IC2201		AN3814K	IC	1	
IC3001		NJM1496D	IC	1	
IC3002		M52055FP	IC	1	
IC3003		MN4013BS	IC	1	
IC3004		M52063SP	IC	1	
IC3502		BA7604N	IC	1	
IC3503		VCR0321A	IC	1	
IC4001		BA7766AS	IC	1	
IC6001		BU5780S	IC	1	
IC6002		LM393PS	IC	1	
IC6501		AN6562S	IC	1	
IC6502		AN6914S	IC	1	
IC6503		MN6740VRDN	IC	1	
IC6504		MN1280R	IC	1	
IC6505		AN6914S	IC	1	
IC8501		BA7107S	IC	1	
			RESISTOR		
K2001		ERJ6GMZOROO	M.RESISTOR CH 1/10W 0	1	
			PACK PIN		
KR851		VJR0163	PACK PIN	1	
			COILS		
L301-04		ELESP101KA	COIL 100UH	4	
L305		ELESP560KA	COIL 56H	1	
L306		ELESP680KA	COIL 68UH	1	
L802		ELESP150KA	COIL 15UH	1	
L803		ELESP101KA	COIL 100UH	1	
L804		ELESP150KA	COIL 15UH	1	
L810,11		ELESP101KA	COIL 100UH	2	
L851		VLQEL05F101K	COIL 100UH	1	
L2001		ELESP102KA	COIL 1000UH	1	
L3001,02		ELESP101KA	COIL 100UH	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L3003	ELESP151KA	COIL 150UH	1	
L3006	ELESQ4R7JA	COIL 4.7UH	1	
L3007	ELESP6R8JA	COIL 6.8UH	1	
L3008	ELESP120KA	COIL 12UH	1	
L3009,10	ELESP101KA	COIL 100UH	2	
L3011	ELESP3R3KA	COIL 3.3UH	1	
L3012	ELESP101KA	COIL 100UH	1	
L3013	ELESP680JA	COIL 68UH	1	
L3501,02	ELESP101KA	COIL 100UH	2	
L3504,05	ELESP101KA	COIL 100UH	2	
L4001	VLQEL07F153J	COIL 15MH	1	
L4002	ELESP471KA	COIL 470UH	1	
L4003	VLQ0123	COIL	1	
L6202	ELESP101KA	COIL 100UH	1	
L6501	VLQEL07F222J	COIL 2200UH	1	
L8001	ELESP560KA	COIL 56UH	1	
L8009	ELESP101KA	COIL 100UH	1	
L8501	ELESP101KA	COIL 100UH	1	
L8502	ELESP270KA	COIL 27UH	1	
L8503	ELESP101KA	COIL 100UH	1	
L8509-11	ELESP101KA	COIL 100UH	3	
L8513	ELESP221KA	COIL 220UH	1	
L8514	ELESP120KA	COIL 12UH	1	
L8515	ELESP221KA	COIL 220UH	1	
L8516	ELESP680JA	COIL 68UH	1	
		CONNECTORS		
P001	VJS1237	CONNECTOR (FEMALE)	1	
P006	VJS1902	CONNECTOR (FEMALE)	1	
P501	VJS2382	CONNECTOR (FEMALE)	1	
P1001	VJF0171T	CONNECTOR	1	
P1002	VJF0093	CONNECTOR	1	
P2001	VJP1932T	CONNECTOR (MALE)	1	
P2001	VJS1932	CONNECTOR (FEMALE)	1	
P2201	VJP1237T	CONNECTOR (MALE) 10P	1	
P2201	VJS1237	CONNECTOR (FEMALE)	1	
P3001	VJP1931T	CONNECTOR (MALE)	1	
P3001	VJS2382	CONNECTOR (FEMALE)	1	
P4001	VJP1233T	CONNECTOR (MALE) 6P	1	
P6001	VJS2571A012	CONNECTOR (FEMALE)	1	
P6802	VJS1737	CONNECTOR (FEMALE)	1	
P7001	VJS2650A006Z	CONNECTOR (FEMALE)	1	
P7002	VJS2650A007Z	CONNECTOR (FEMALE)	1	
P7401	VJS2571A013	CONNECTOR (FEMALE)	1	
P7402	VJS2571A008	CONNECTOR (FEMALE)	1	
P7403	VJP1231T	CONNECTOR (MALE) 4P	1	
P7403	VJS1737	CONNECTOR (FEMALE)	1	
		PACK PINS		
PK301	VJR0130	PACK PIN	1	
PK302	VJR0129	PACK PIN	1	
PK303	VJR0161	ANGLE PIN HEADER	1	
PK304	VJR0128	CONNECTOR 5P	1	
PK3501	VJR0232	PACK PIN	1	
PK3502	VJR0190	PACK PIN	1	#PK
		TRANSISTORS		
Q301,02	MSC2295	TRANSISTOR	2	
Q303	MSB709	TRANSISTOR	1	
Q805	MSD601	TRANSISTOR	1	
Q3004-06	MSC2295	TRANSISTOR	3	
Q3009,10	MSB709	TRANSISTOR	2	
Q3011	MSD601	TRANSISTOR	1	
Q3012-14	MSC2295	TRANSISTOR	3	
Q3015-19	MSD601	TRANSISTOR	5	
Q3020	MSB709	TRANSISTOR	1	
Q3021	2SD1996	TRANSISTOR	1	
Q3022	MSD601	TRANSISTOR	1	
Q3023	MSB709	TRANSISTOR	1	
Q3501	MSD601	TRANSISTOR	1	
Q3502	MSB709	TRANSISTOR	1	
Q3506	MSC2295	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q3507	MSB709	TRANSISTOR	1	
Q4001	2SD1992A-R	TRANSISTOR	1	(R)
Q4002	2SD1328	TRANSISTOR CHIP	1	
Q6003	2SD1944DUAJK	TRANSISTOR	1	
Q6004,05	MSD601	TRANSISTOR	2	
Q6006	2SD1944DUAJK	TRANSISTOR	1	
Q6207	MSC2295	TRANSISTOR	1	
Q6501,02	MSD601	TRANSISTOR	2	
Q6506	2SD893	TRANSISTOR	1	
Q6507	2SD592	TRANSISTOR	1	
Q6508	2SD1423	TRANSISTOR	1	
Q6509,10	2SA1512-R	TRANSISTOR	2	(R,S)
Q6511,12	MSB709	TRANSISTOR	2	
Q8501,02	MSD601	TRANSISTOR	2	
Q8505	MSC2295	TRANSISTOR	1	
Q8506	MSB709	TRANSISTOR	1	
Q8509,10	MSC2295	TRANSISTOR	2	
		COMBINATION PARTS		
		(TRANSISTOR & RESISTORS)		
QR301	MRN1403	TRANSISTOR-RESISTOR	1	
QR302	MRN1407	TRANSISTOR-RESISTOR	1	
QR303	MRN1404	TRANSISTOR-RESISTOR	1	
QR304	MRN1403	TRANSISTOR-RESISTOR	1	
QR802	MRN1404	TRANSISTOR-RESISTOR	1	
QR803	MRN1403	TRANSISTOR-RESISTOR	1	
QR805	MRN1407	TRANSISTOR-RESISTOR	1	
QR806	MRN1404	TRANSISTOR-RESISTOR	1	
QR807	MRN1403	TRANSISTOR-RESISTOR	1	
QR3001	MRN1403	TRANSISTOR-RESISTOR	1	
QR3002	DTC363EK	TRANSISTOR-RESISTOR	1	
QR3003	DTC363EK	TRANSISTOR-RESISTOR	1	
QR3004	MRN1402	TRANSISTOR-RESISTOR	1	
QR3005-07	MRN1407	TRANSISTOR-RESISTOR	3	
QR3008	MRN1402	TRANSISTOR-RESISTOR	1	
QR3009	DTC363EK	TRANSISTOR-RESISTOR	1	
QR3012	MRN1403	TRANSISTOR-RESISTOR	1	
QR3013-15	MRN1404	TRANSISTOR-RESISTOR	3	
QR3016	MRN1403	TRANSISTOR-RESISTOR	1	
QR3017-19	MRN1404	TRANSISTOR-RESISTOR	3	
QR3020	MRN1403	TRANSISTOR-RESISTOR	1	
QR3021	MRN1404	TRANSISTOR-RESISTOR	1	
QR3023	MRN1404	TRANSISTOR-RESISTOR	1	
QR3024	MRN2404	TRANSISTOR-RESISTOR	1	
QR3025	DTC363EK	TRANSISTOR-RESISTOR	1	
QR3026	MRN1404	TRANSISTOR-RESISTOR	1	
QR3501-04	MRN1404	TRANSISTOR-RESISTOR	4	
QR4001	MRN1404	TRANSISTOR-RESISTOR	1	
QR6001	MRN1402	TRANSISTOR-RESISTOR	1	
QR6002	MRN2402	TRANSISTOR-RESISTOR	1	
QR6003,04	MRN1404	TRANSISTOR-RESISTOR	2	
QR6008	MRN2403	TRANSISTOR-RESISTOR	1	
QR6012	MRN1403	TRANSISTOR-RESISTOR	1	
QR6013	UN2114	TRANSISTOR-RESISTOR	1	
QR6017	MRN2402	TRANSISTOR-RESISTOR	1	
QR6018,19	MRN1407	TRANSISTOR-RESISTOR	2	
QR6020,21	MRN1404	TRANSISTOR-RESISTOR	2	
QR6501,02	DTC363EK	TRANSISTOR-RESISTOR	2	
QR6507	MRN2402	TRANSISTOR-RESISTOR	1	
QR6508	MRN1404	TRANSISTOR-RESISTOR	1	
QR6509	MRN2404	TRANSISTOR-RESISTOR	1	
QR6511	MRN1404	TRANSISTOR-RESISTOR	1	
QR6512	MRN1407	TRANSISTOR-RESISTOR	1	
		RESISTORS		
R301	ERDS2TJ151	C.RESISTOR 1/4W 150	1	
R302	ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R303	ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R304	ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R306	ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R307	ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R308	ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R309		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R312		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R314		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R315		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R320		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R321,22		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R323		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R324		ERJ6GEYG182	M.RESISTOR CH 1/10W 1.8K	1	
R325		ERJ6GEYG202	M.RESISTOR CH 1/10W 2K	1	
R326		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R327		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R805		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R806		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R807		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R808		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R832		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R833		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R834		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R837		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R838		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R839		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R840		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R841		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R843-45		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	3	
R846		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R847		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R851		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R852		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R853		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R854		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R855		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R856		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R861		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R862		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R863,64		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R865		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R866		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R868		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R869		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R870		ERJ6GEYJ132	M.RESISTOR CH 1/10W 1.3K	1	
R871		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R2001-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2004		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R2005		ERX12SJR82	M.RESISTOR 1/2W 0.82	1	
R2006		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2007		ERJ6GMYG122	M.RESISTOR CH 1/10W 1.2K	1	
R2008		ERJ6GMYG622	M.RESISTOR CH 1/10W 6.2K	1	
R2009		ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R2010		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2201		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2202-04		ERDS2TJ150	C.RESISTOR 1/4W 15	3	
R2205		ERX12SJR68	M.RESISTOR 1/2W 0.68	1	
R3001		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3002,03		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3004		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3005		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3010		ERJ6GMYG152	M.RESISTOR CH 1/10W 1.5K	1	
R3011		ERJ6GMYG272	M.RESISTOR CH 1/10W 2.7K	1	
R3012		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3013		ERJ6GMYG102	M.RESISTOR CH 1/10W 1K	1	
R3014		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3015		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3017,18		ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	2	
R3019,20		ERJ6GMYG102	M.RESISTOR CH 1/10W 1K	2	
R3021		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3022		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R3023		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3024		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3026		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R3027		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3029,30		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R3031		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3032		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3033		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3034,35		ERJ6GMYG102	M.RESISTOR CH 1/10W 1K	2	
R3036		ERJ6GMYG122	M.RESISTOR CH 1/10W 1.2K	1	
R3037,38		ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	2	
R3039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3040		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R3041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3042		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R3045,46		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R3047,48		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3049		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3050		ERJ6GMYG221	M.RESISTOR CH 1/10W 220	1	
R3051		ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	1	
R3052		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3053		ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	1	
R3054		ERJ6GMYJ132	M.RESISTOR CH 1/10W 1.3K	1	
R3055		ERJ6GMYJ470	M.RESISTOR CH 1/10W 47	1	
R3056		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3057		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3058		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3059		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3060		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R3061		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3062		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3063		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3064,65		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R3066		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3067		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3068		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R3069		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3070		ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R3071		ERJ6GMYG563	M.RESISTOR CH 1/10W 56K	1	
R3072		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3073		ERG12SJ822	M.RESISTOR 1/2W 8.2K	1	
R3074,75		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R3076		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3078		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3079		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3080		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3081		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3084		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3085,86		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R3087		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3088		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3089		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3090		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3091		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3501,02		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	2	
R3503		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3504		ERJ6GEYJ680	M.RESISTOR CH 1/10W 68	1	
R3505		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3506		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R3508		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3513		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3514		ERJ6GEYJ242	M.RESISTOR CH 1/10W 240	1	
R3515		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3516		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3518		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3519		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3520		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3521		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3522-24		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R3525		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3526		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4001		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R4002		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4003		ERDS2TJ203	C.RESISTOR 1/4W 20K	1	
R4004,05		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R4006		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4007		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4008		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4010		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4011		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4012		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4015		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4019		ERJ6GMYJ363	M.RESISTOR CH 1/10W 36K	1	
R4020		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4021		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4031		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4032		ERJ6GMYG272	M.RESISTOR CH 1/10W 2.7K	1	
R4033		ERJ6GMYG622	M.RESISTOR CH 1/10W 6.2K	1	
R4034		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4048		ERJ6GMYJ470	M.RESISTOR CH 1/10W 47	1	
R4049		ERJ6GMYJ820	M.RESISTOR CH 1/10W 82	1	
R4050		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4051		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4052		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R4053		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4054		ERJ6GMYJ621	M.RESISTOR CH 1/10W 620	1	
R4055		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6001		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6002		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6005,06		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6021		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6026		ERDS1TJ332	C.RESISTOR 1/2W 3.3K	1	
R6027		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6030		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R6031		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6032		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6037		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6038		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6039		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6040		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6041		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6042		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6043,44		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R6045		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6046		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6047		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6048		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6049		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R6050		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6262		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6263		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6264		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6265		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6505		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6506		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6507		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6508		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6509		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6510,11		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6512,13		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R6514		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6515		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6516		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6517		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6518		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6519		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6522		ERJ6GMYG682	M.RESISTOR CH 1/10W 6.8K	1	
R6523		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R6525,26		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6527		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R6528		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6529		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6530		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6531		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6532		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6533		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R6534		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6535		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6536,37		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6538		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6539		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R6540		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6547		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6548		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6549		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R6550-52		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	3	
R6553		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6554		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R6555		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6556		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6557,58		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	2	
R6559		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6560,61		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	2	
R6562		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6563		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6564		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6565		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6566		ERJ6GMYJ121	M.RESISTOR CH 1/10W 120	1	
R6567		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6568		ERG2SJ180	M.RESISTOR 2W 18	1	
R6569		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6570		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6571		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6572,73		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R6574		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6575		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6576		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6577		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R6578		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6579		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6580		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6581		ERD2FCG220	C.RESISTOR 2W 22	1	
R6582		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R6583		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6584		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6585		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R6586,87		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R6588		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6589		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R6590		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6591,92		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	2	
R6593		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R6594		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R6595		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6596		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6597		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R6758		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R8020,21		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	2	
R8022		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R8023		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8024		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8025,26		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R8027		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R8028		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8029		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R8030		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R8031		ERJ6GMYJ223.	M.RESISTOR CH 1/10W 22K	1	
R8032		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R8501		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R8502		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R8503		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8504		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R8505		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R8519		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R8520		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8521		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R8522,23		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R8524		ERJ6GEYG473	M.RESISTOR CH 1/10W 47K	1	
R8525		ERJ6GEYG304	M.RESISTOR CH 1/10W 30K	1	
R8526		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8527		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R8528		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R8541		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8542		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R8543		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R8544		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R8545		ERJ6GEYJ680	M.RESISTOR CH 1/10W 68	1	
R8546		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8547		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R8548-50		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	3	
R8552		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R8554		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8555,56		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	2	
R8557		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8558,59		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	2	
R8560		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8564		ERJ6GEYG473	M.RESISTOR CH 1/10W 47K	1	
R8565		ERTD2FIL154S	THERMISTOR 150K	1	S
			SWITCHES		
SW3501		VSS0224	SWITCH	1	
SW3502		VSS0225	SWITCH	1	
			TRANSFORMERS		
T851		ELM7Q207A	TRANSFORMER	1	
T4001		EIQ7QF014Q	TRANSFORMER	1	
VR301		EVMF8GA00B23	V.RESISTOR 2K	1	
VR2006		EVNDRAA00B25	V.RESISTOR 200K	1	
VR2011		EVNDRAA00B25	V.RESISTOR 200K	1	
VR2020-22		EVNDRAA00B25	V.RESISTOR 200K	3	
VR3012,13		EVND4AA00B52	V.RESISTOR 500	2	
VR3014		EVND4AA00B13	V.RESISTOR 1K	1	
VR3015		EVND4AA00B23	V.RESISTOR 2K	1	
VR3016		EVND4AA00B53	V.RESISTOR 5K	1	
VR3501-03		EVN58AA00B25	V.RESISTOR 200K	3	
VR4002		EVND4AA00B25	V.RESISTOR 200K	1	
VR8003		EVMF6SA00B14	V.RESISTOR 10K	1	
VR8005		EVMF6SA00B15	V.RESISTOR 100K	1	
VR8502		EVND1AA00B23	V.RESISTOR 2K	1	
VR8504		EVND1AA00B13	V.RESISTOR 1K	1	
VR2001N		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2001P		EVNDRAA00B54	V.RESISTOR 50K	1	
			CRYSTAL OSCILLATORS		
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3001		VSX0433	CRYSTAL OSCILLATOR	1	
X3502		VSX0365	CRYSTAL OSCILLATOR	1	
X3503		VSX0386	CRYSTAL OSCILLATOR	1	
X6001		VSQ0565	CRYSTAL OSCILLATOR	1	
X6201		VSX0409	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VKC0247	HINGE CLIP	1	(MAIN - FRAME)
		VEJ1089	JACK PLATE	1	(INPUT/OUTPUT PACK)
		VMC0075	HEAT SINK SPRING	1	(FOR IC2001)
		VSC1689	IC HEAT SINK	1	(FOR IC2001)
		VMP2631	FUSE ANGLE	1	(FOR Q6003)
		VSC1068	FUSE HEAT SINK	1	(FOR Q6003)
		ENC87750	RF CONVERTER	1	
	■	VEP07635A	TV DEMODULATOR & CH SELECT		(NLA)
			C.B.A.		
			CAPACITORS		
C701		ECEA1CKS220	E.CAPACITOR 16V 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C702		ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	1	
C703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C705		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C706		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C708		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C709		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710,11		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C714		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C717-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C723		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C726		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730,31		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C732		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C735		ECUM1H070DCN	C.CAPACITOR CH 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUM1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270JSN	C.CAPACITOR CH 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUM1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C747		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C750		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C751,52		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	2	
C753		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C755,56		ECUM1H1032FN	C.CAPACITOR CH 50V 0.01U	2	
C757		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C758		ECUM1H102ZFN	C.CAPACITOR CH 50V 1000P	1	
C759		ECUM1H680JPN	C.CAPACITOR CH 50V 68P	1	
C760		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C761		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C762		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C763		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C764		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C765		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C766		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C767		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C768		ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C769,70		ECEA1CK470	E.CAPACITOR 16V 47U	2	
C771-73		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C774		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C775		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C776		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C780		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C781		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C782		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C790,91		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C797		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C798,99		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H392JH	P.CAPACITOR 50V 3900U	1	
C7654		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7655		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7656		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C7657		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7658		ECQP1H562JZ	P.CAPACITOR 50V 5600P	1	
C7659		ECQB1H272JH	P.CAPACITOR 50V 2700U	1	
C7660,61		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	2	
C7662		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7663		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7664		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7665,66		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7667		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7670,71		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7673		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7675		ECEA1HKN010	E.CAPACITOR 50V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7676,77		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7678		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7680		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C7681		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
			DIODES		
D701		MA29W-B	DIODE	1	(AB)
D702,03		1SS254	DIODE	2	
D704,05		MA856	DIODE	2	
D706-09		1SS254	DIODE	4	
D710		MA3100L	DIODE	1	
D711		MA856	DIODE	1	
D720,21		MA856	DIODE	2	
D773		1SS254	DIODE	1	
			ICS		
IC701		M51366SP	IC	1	
IC702		TA8710S	IC	1	
IC703		AN5215	IC	1	
IC704		UPD4066BC	IC	1	
IC7651		AN5421N	IC	1	
IC7652		AN5043	IC	1	
IC7653		MN4066BS	IC	1	
L701		ELESP101KA	COIL 100UH	1	
L711		ELQTR39XB	COIL 0.39UH	1	
L713		VLQ0123MR68	COIL 68UH	1	
L714		ELQT1R2KB	COIL 1.2UH	1	
L715		ELESP680KA	COIL 68UH	1	
L716		ELESP1R0KA	COIL 1UH	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP5R6KA	COIL 5.6UH	1	
L720		ELESP820KA	COIL 82UH	1	
L721,22		ELESP151KA	COIL 150UH	2	
L723		ELESP680KA	COIL 68UH	1	
L724-26		ELESP151KA	COIL 150UH	3	
L727		ELESP120KA	COIL 12UH	1	
L781		VLQ0213K680	COIL 68UH	1	
			CONNECTOR		
P701		VJS2571A009	CONNECTOR (FEMALE)	1	
			TRANSISTORS		
Q703		2SD601-S	TRANSISTOR	1	(S,T)
Q704		2SD601-S	TRANSISTOR CHIP	1	(S,T)
Q705,06		2SC2404-C	TRANSISTOR CHIP	2	(C,D)
Q707		2SD601-S	TRANSISTOR	1	(S,T)
Q708		2SD1328	TRANSISTOR CHIP	1	
Q709		2SD601-S	TRANSISTOR	1	(S,T)
Q712		2SD638	TRANSISTOR	1	
Q771,72		2SD601-S	TRANSISTOR	2	(S,T)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR701,02		MRN1404	TRANSISTOR-RESISTOR	2	
QR711,12		MRN1403	TRANSISTOR-RESISTOR	2	
QR713		MRN1404	TRANSISTOR-RESISTOR	1	
QR714		MRN1402	TRANSISTOR-RESISTOR	1	
QR715,16		MRN1404	TRANSISTOR-RESISTOR	2	
QR718		MRN1404	TRANSISTOR-RESISTOR	1	
QR719		MRN1407	TRANSISTOR-RESISTOR	1	
QR720		MRN1402	TRANSISTOR-RESISTOR	1	
QR721,22		MRN1404	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R701		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R703-06		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	4	
R710,11		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R716		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719,20		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R721		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R722		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R731		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R732		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R733		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R739		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R741		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ121	M.RESISTOR CH 1/10W 120	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R751		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R752		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R753		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R754		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R755		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R756		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R757		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R758		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R759		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R760		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R761		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R762		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R763		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R764		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R765		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R766		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R767		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R768,69		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	2	
R770,71		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	2	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R774		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R775		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R776		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R777		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R778		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R779		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R780		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R781		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R782		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R783		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R784		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R785		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R786,87		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	2	
R788		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R789,90		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R792		ERJ6GEYJ120	M.RESISTOR CH 1/10W 12	1	
R794		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R795		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R796		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R797		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R799		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7651		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7654		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7655		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7656		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R7657		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7658		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7659		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R7661		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7662		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7663		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7664		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7671,72		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7673		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7674		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R7675		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7676		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7677		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7678		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R7679		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7680		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7681,82		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7683		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R7684		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7691		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7692		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7694		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
			TRANSFORMERS		
T703		EIV5EC021A	TRANSFORMER	1	
T704		EIV5EC020A	TRANSFORMER	1	
T711		EIS5EC008A	TRANSFORMER	1	
T712		EIS5EC016P	TRANSFORMER	1	
T713		EIS5EC005A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR701,02		EVNDRAA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR751,52		EVNDRAA00B53	V.RESISTOR 5K	2	
VR7660		EVNDRAA00B23	V.RESISTOR 2K	1	
			CRYSTAL OSCILLATORS		
X710		EFCH38MGT3	CRYSTAL OSCILLATOR	1	
X711		EFCS3F02W3B	CRYSTAL OSCILLATOR	1	
X712		EFCS6R0MS5	CRYSTAL OSCILLATOR	1	
X713		EFCA4504BFB	CRYSTAL OSCILLATOR	1	
X714		EF0A500K04B	CRYSTAL OSCILLATOR	1	
X715		ELB5A016	FILTER	1	
X717		EFCS4R5MS5	FILTER	1	
			MISCELLANEOUS		
		ENV59843F2	TUNER	1	<!>
		VSC2233	SHIELD CASE (MAIN)	1	
		VSC3298	SHIELD CASE (TOP)	1	
		VSC3299	SHIELD CASE (BOTTOM)	1	
		VJF0374	HOLDER	1	
	■	VEP05160B	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C502		ECUM1E1042FN	C.CAPACITOR CH 25V 0.1U	1	
C503		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C504		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C505		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C506		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C507		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C508,09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C510		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C511		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C512		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C513		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C514		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C515		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C516		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C517		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C518		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C519		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C520		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C521		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C522		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C524		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C525,26		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	2	
C527,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C529,30		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	2	
C531		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C532		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
			IC		
IC501		BA7274S	IC	1	
			RESISTOR		
K503,04		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0	2	
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F270J	COIL 27UH	1	
L503		VLQEL05F151K	COIL 150UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQEL05F820K	COIL 82UH	1	
			CONNECTORS		
P002		VJS1449	CONNECTOR (FEMALE)	1	
P501		VJP1931T	CONNECTOR (MALE)	1	
			TRANSISTORS		
Q501		MSB709	TRANSISTOR	1	
Q502		MSC2295	TRANSISTOR	1	
Q503		2SC2404	TRANSISTOR	1	
			RESISTORS		
R501		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R502		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R503		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R504		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R505		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R506		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R507		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R508		ERJ6GMYJ204	M.RESISTOR CH 1/10W 200K	1	
R509		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R510		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R511		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R512		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R513,14		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	2	
R515,16		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R517		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0	1	
R518		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R519		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R520		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R521		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R522,23		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	2	
R524		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R525		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R526		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
			VARIABLE RESISTOR		
VR501		EVND1AA00B23	V.RESISTOR 2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VSC2353	SHIELD CASE (TOP)	1	
		VSC2354	SHIELD CASE (MAIN)	1	
		VSC2355	SHIELD CASE (BOTTOM)	1	
	■	VEP07615B	TIMER C.B.A.		(NIA)
			CAPACITORS		
C6701		ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C6702		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6703		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C7501		ECRHA030E41	TRIMMER 3P	1	
C7502		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C7503,04		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	2	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7514		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7515		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7551,52		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
			DIODES		
D6701		PN323B	DIODE	1	
D7501		MA3068	DIODE	1	
D7502		MA73	DIODE	1	
D7507		MA73	DIODE	1	
D7511,12		MA73	DIODE	2	
D7517		MA73	DIODE	1	
D7530		MA73	DIODE	1	
D7532,33		MA73	DIODE	2	
D7535		MA73	DIODE	1	
D7537-41		MA73	DIODE	5	
D7550		LN28RCPPV	DIODE	1	
D7551		LN38GCPPV	DIODE	1	
D7554		LN28RCPPV	DIODE	1	
D7555		LN48YCPPV	DIODE	1	
D7556		LN38GCPPV	DIODE	1	
D7557-63		MA73	DIODE	7	
D7570		MA2300A	DIODE	1	
			DISPLAY TUBE		
DP7501		VSL0190	DISPLAY TUBE	1	
			ICS		
IC6701		UPC2800GR	IC	1	
IC7501		M37422V4AQ	IC	1	
IC7502		MN12C261D	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	(S)
K03		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K6,K7		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
K12		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K14		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
K16		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K18		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
			COIL		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJS3136B013Z	CONNECTOR	1	
P7502		VJS3136B008Z	CONNECTOR	1	
P7503		VJS3136B009Z	CONNECTOR	1	
P7505		VJS2652	CONNECTOR (FEMALE)	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR7501		MRN1404	TRANSISTOR-RESISTOR	1	
QR7503-08		MRN1402	TRANSISTOR-RESISTOR	6	
			RESISTORS		
R6701		ERJ6ENF1363	M.RESISTOR CH 1/10W 36K	1	
R7501		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R7502		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7503		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7504		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7508-10		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7512		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7515-22		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	8	
R7523-27		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	5	
R7531,32		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R7533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7535		ERDS1TJ3R9	C.RESISTOR 1/2W 3.9	1	
R7538		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7541		ERJ6GMYK106	M.RESISTOR CH 1/10W 10M	1	
R7542		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R7543-45		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	3	
R7546		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7549		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7550		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R7551		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7552-54		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	3	
R7555		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7556		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R7557-59		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	3	
R7560		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7570		ERD2FCG221	C.RESISTOR 220	1	
			SWITCHES		
SW7501-03		EVQ11407K	SWITCH	3	
SW7505		EVQ11407K	SWITCH	1	
SW7508		EVQ11407K	SWITCH	1	
SW7510		EVQ11407K	SWITCH	1	
SW7550,51		VSS0243	SWITCH	2	
			CRYSTAL OSCILLATORS		
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0927	FIP HOLDER	1	
		VMD1713	LED HOLDER	1	
		VGU5446	SW KNOB	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP06726A	OPERATION C.B.A.		(NLA)
			LED		
D6501		LN28RCPP	LED	1	
			CONNECTORS		
P6501		VJP1244T	CONNECTOR (MALE) 4P	1	
P6502		VJP2652	CONNECTOR	1	
			RESISTORS		
R6501		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6504		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
			SWITCHES		
SW6501		VSS0312	SWITCH	1	
SW6502		VSS0236	SWITCH	1	
SW6503-19		EVQ11407K	SWITCH	17	
			V.RESISTOR		
VR6501		EWAKFKXC3B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		VMD1047	LED SPACER	1	
		VGU5445	SW KNOB	2	
	■	VEP01474C/D	POWER C.B.A.		<!>(NLA)
			CAPACITORS		
C1101		ECQU2A333MNB	P.CAPACITOR 100V 0.033U	1	
C1102		VCC0027	.CAPACITOR V	1	
C1108		ECOS2GU820	P.CAPACITOR 400V 82P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473KF	P.CAPACITOR	1	
C1111		ECKD3D151KB	C.CAPACITOR 2KV 150P	1	
C1112		ECQB1H682JF	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H474JF	P.CAPACITOR 50V 0.47U	1	
C1114		ECA1CXLV470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H123JF	P.CAPACITOR 50V 0.012U	1	
C1116		ECCD2H101J	C.CAPACITOR 500V 100P	1	
C1117		ECQP1101JZ	P.CAPACITOR 100V 100P	1	
C1118		ECEA1JFE470	E.CAPACITOR 63V 47U	1	
C1119,20		ECEA1DFZ681X	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331X	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1137		ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C1138		ECQB1H153JF	P.CAPACITOR 50V 0.015U	1	
C1139		ECEA1HFS100	E.CAPACITOR 50V 10U	1	
C1140		VCK0040	.CAPACITOR V	1	
C1141		VCK0041	.CAPACITOR V	1	
C1146,47		VCK0046	.CAPACITOR V	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1148		VCK0083	C.CAPACITOR 3300P	1	
C1149		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C1150		ECCF1H470JC	C.CAPACITOR 50V 47P	1	
C1151		ECKD2H331KB	C.CAPACITOR 500V 330P	1	
C1152		ECQV1H104JF	P.CAPACITOR 50V 0.1U	1	
			DIODES		
D1101		ENB461D-05A	SURGE ABSORBER 460V	1	
D1102		S1WBA60	DIODE	1	
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	
D1107		1SS254	DIODE	1	
D1108		MA185	DIODE	1	
D1109		30DF2	DIODE	1	
D1110		10ELS2	DIODE	1	
D1111		31DQ04	DIODE	1	
D1112		AK04	DIODE	1	
D1113		MA2160A	DIODE	1	
D1114		MA4130L	DIODE	1	
D1116,17		MA178	DIODE	2	
D1119		1SS254	DIODE	1	
			ICS		
IC1101		STRD6108E	IC	1	
IC1102		VEFH24A	HIC	1	(VEP01474C ONLY)
IC1102		STK5391	IC	1	(VEP01474D ONLY)
IC1103		SE014N	IC	1	
			COILS		
L1102		ELF18D417	COIL	1	
L1103		VLQ0410	COIL	1	
L1110		VLP0085	COIL	1	
L1111		VLP0074	COIL	1	
L1112,13		VLP0118	COIL	2	
			CONNECTORS		
P1101		VJP1394T	CONNECTOR (MALE)	1	
P1102		VJS1973	CONNECTOR	1	
			TRANSISTORS		
Q1101		PC111AD	TRANSISTOR	1	
Q1102		2SD1330	TRANSISTOR	1	
Q1103		2SD639	TRANSISTOR	1	
Q1104		2SD1330	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12ZGK685	SOLID 1/2W 6.8M	1	
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R1108		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1109		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R1110		ERG2SJ560	M.RESISTOR 2W 56	1	
R1113		ERG1SJ182	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1121		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1122		ERG2SJ220	M.RESISTOR 2W 22	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	C.RESISTOR 1W 2.2	1	
R1129		ERW1PKR30	C.RESISTOR 1W 0.3	1	
			TRANSFORMER		
T1101		ETE28K60BY	TRANSFORMER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	
		VMZ1608	CAPACITOR COVER	1	(FOR C1147)
	■	VEP66038B	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C1		ECEA0GKS101	E.CAPACITOR 4V 100U	1	
C2		ECKF1H121KB	C.CAPACITOR 50V 120P	1	
C3		ECKF1H101KB	C.CAPACITOR 50V 100P	1	
C4		ECQB1H222KH	P.CAPACITOR 50V 2200P	1	
			DIODES		
D1		LN66S	LED	1	
D2-D9		MA165	DIODE	8	
			IC		
IC1		MN6011M	IC	1	
			COMBINATION PARTS		
QR1		UN8231	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R1		ERDS2TJ1R0	C.RESISTOR 1/4W 1.0	1	
			CRYSTAL OSCILLATOR		
X1		VSX0179	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0253	ELECTRODE (+)	1	
		VJR0254	ELECTRODE (-)	1	
	■	VXA3820	MECHANISM CONNECTION C.B.A.		(NLA)
			IC		
IC1501		ON2170	IC	1	
			RESISTORS		
R1501,02		ERJ8GCYJ223	M.RESISTOR CH 1/8W 22K	2	
			CONNECTORS		
P1504		VJS2342W	CONNECTOR(FEMALE) 13P	1	
P1505		VJP1242T	CONNECTOR(MALE) 2P	1	
			MISCELLANEOUS		
		VMA7844	REINFORCEMENT PLATE (F)	1	
		VMA7845	REINFORCEMENT PLATE (R)	1	
		VMZ1366	PROTECTION SHEET	1	
	■	VEK3578	SUPPLY PHOTO TR. C.B.A.		(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NVS	TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR. HOLDER	1	
	■	-------	TAKE-UP PHOTO TR. C.B.A.		
			CAPACITOR		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			CONNECTOR		
P1503		VJS2165W	CONNECTOR(FEMALE) 6P	1	
			TRANSISTOR		
Q1502		PN150NVS	TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR. HOLDER	1	

Panasonic

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